AD-A982 805 DEPUTY CHIEF OF STAFF FOR RESEARCH DEVELOPMENT AND AC--ETC F/8 15/5 DEPARTMENT OF THE ARMY JUSTIFICATION OF ESTIMATES FOR FISCAL YE--ETC(U) JAN BO NL UNCLASSIFIED | 0- 2-4| 4 007-05

DEPARTMENT OF THE ARMY
Office of the Deputy Chief of Staff
For
RESEARCH, DEVELOPMENT AND ACQUISITION

28 January 1980

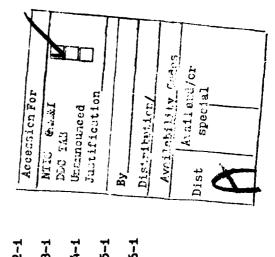
DEPARTMENT OF THE ARMY PROCUREMENT APPROPRIATIONS

Justification of Estimates for Fiscal Year 1981, 82(Auth only)

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Aircraft Procurement, Army	Missile Procurement, Army	Procurement of Weapons and Tracked Combat Vehicles, Army	Procurement of Ammunition, Army	Other Procurement, Army	Procurement of Equipment and Missiles, Army



- 4

Department of the Army Aircraft Procurement, Army

Justification of Estimates for Fiscal Year 1981, 1982

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AIRCRAFT PROCUREMENT, ARMY

Section 1

Budget Appendix Extract

Language

Program and Financing Schedule

Object Classification Schedule

1-1 - 1/21/80

APPROPRIATION LANGUAGE

handling equipment, spare parts, and accessories therefor; specialized and training devices; expansion of public and private plants including the land necessary therefor, without regard to section 4774, title 19, United States Code, for the foregoing purposes, by section 355, Revised Statutes, as amended; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes; (\$961,837,000), \$925,300,000, to remain available (1) for continuous sequence of the foregoing number 30, (1982) 1983. and such lands and interests therin, may be acquired, and construction prosecuted thereon prior to approval of title as required For construction, procurement, production, modification and modernization of aircraft, equipment, including ordnance, ground

(10 U.S.C. 2353, 3012, 4531, 4532, 31 U.S.C. 649c; Department of Defense Appropriation Act, 1980; additional authorizing legislation to be proposed.)

EXPLANATION OF LANGUAGE CHANGES

- (1) To change the amount of appropriation requested for FY1981.
- (2) To change the obligation expiration date for the FY 1981 program.

-7 - 1/71/8

r m	P C
Aircraft Procurement, Army	Program and Financing (in thousands
Procur	
roraft	Finan
₹	2
	Program

Army

26 JAN 60

dentification code	epoo (Identification code 21-2031-0-1-051	Budget	t plan (amounts for t actions programed	its for Gramed)		Obligations	
• • • • • • • • • • • • • • • • • • •			1979 actual	1980 est.	1981 est.	1979 actual	1980 est.	1981 est
Program by activities: Direct:	y activ	14 1 00 ::						
-	Aircraft		508,400	396, 500	348,400	490, 426	370,569	377,314
	Hodi + ic	Modification of mircraft	297, 300	420,037	386, 300	299, 288	393, 817	372,200
i d	Speres	Openes and repair parts Support soutoment and factities	66, 909	71,300	126,500	69,706	75, 293	122, 209 RA 234
;					7			
To Ret	Total direct	Total direct Reimbursable program	949, 709 38, 799	951,037	925,300 75,500	923,375 34,224	914,914 65,086	929, 957 62, 043
10.00	Total		988, 508	1,022,437	1,000,800	957,599	980,000	000 '666
Financing: Offsetti	j: Ing col	nencing: Offsetting collections from:						
	Federal funds		-17,777	-41,100	-43, 100	-14,113	-40,100	-43,100
Ī	Trust funds		-20,624	-30, 300	-32,400	- 15, 158	-29,800	-32,40
14.00 Non-f	ederal	Non-federal sources	966-	:		77	: : : : : : : : : : : : : : : : : : : :	: : : : : : : : : : : : : : : : : : : :
5	Complet!					-182,622	-192.849	-233,786
Reprogr	t bulled t		-11,084	:	:			
5	complet!		:			192,849	233,786	235, 586
25.00 Unoblig	pated be	Unobligated balance lapsing	11,084			11,084		
Bud.	Budget authority	hority	949, 709	951,037	925,300	949, 709	951,037	925, 300
Budget authority:	thority	Budget suthority:	1 1 1 1 1 1 1 1	· · · · · · · · · · · · · · · · · · ·	; ; ; ; ; ; ; ;		, ; ; ; ; ; ;) { } } !
40.00 Appro	Appropriation Transferred to	Approprietion Transferred to other accounts	949,708	961,837	925, 300	949, 709	961,837	925, 300
	ropriet	Appropriation (adjusted)	949,709	951,037	925, 300	949, 709	951,037	925, 300
Relation 71.00 Obligat 72.40 Obligat 72.40 Obligat 77.00 Adjustm	of obli	Relation of obligations to outlays: 71.00 Obligations incurred, net 72.40 Obligated belance, start of year 74.40 Obligated belance, and of year				928, 399 752, 519 -1, 130, 640 7, 657	910, 100 1, 130, 640 -1, 290, 740	923, 500 1, 290, 740 -1, 340, 240
	Outlava					4587 934	750.000	874 000
						100	***)

Army	Aircraft Procurement, Army			28 JAN 80
	Object Classification (in thousands of dollars)			
•		1979 actual	1980 681. 1981 681.	1981 681.
Direct obligations:				
		112	:	:
Co. C.		63 719		474
26.0 Supplies and materials		87.720	67,855	70.990
31.0 Equipment		771,631	787,459	797, 122
Total direct obligations		923, 375	914,914	929,957
			经过基础的	
Reimbursable obligations: 25.0 Other services:				
Contracts		2.300	6. 525	4.880
26.0 Supplies and materials		3,250	7,430	5,560
31.0 Equipment		28,674	51,131	58,603
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Total reimbursable obligations	\$ C	34, 224	65,096	69,043
0 00 C C C C C C C C C C C C C C C C C				
		880 ' / OR	000 ,00%	000 'AAA

	Aircraft Procurement, Army	ment, Army				28 JAN 80
	Program and Financing (in thousands of dollars)	thousands of	dollers)		1977 Fiscal	1977 Fiscal year program
2)-2031-0-1-05)	Budget plan (exposurement actions	Budget plan (amounts for procurement actions programed)	sta for ogramed)		Cipi igat ions	
	1979	BCtUB1 1980 est. 1981 est.	1981 684.	1979 actual	1980 est.	1981 est.
Program by activities:					,	
Direct:				7,452		
1. Aircraft				12,973		
2. Modification of aircraft				7, 183		: : : : : : : : : : : : : : : : : : : :
3. Spares and repair terits				į		. 1
			f		ı	
				33,141		
Reference of the second of the			. !	080'1	. !	
				34, 239		: : : : : : : : : : : : : : : : : : : :
10.00 Total	•					
Firencing:				1		
				3, 4		
				184.		
13.00 Irust funds			: : : : : : : : : : : : : : : : : : : :	2E-		
Unobligated balance available.	ï		•	-50, 502		:
For completion of prior year budget Plans						: : : : : : : : : : : : : : : : : : : :
Reprograming from of to prior year 25.00 Unobligated balance lapsing	11,084		. 1	11,084	• 1	· [· [·] ·] ·] ·] ·]
Budget suthority						

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The cal are some market

Army	Aircraft Procurement, Army	ment, Army				26 JAN 80
RECDOLL	Program and Financing (in thousands of dollars)	thousands of	dollers)		1978 Fiscal year program	veer program
	Budge	Budget plan (amounts for procurement actions programed)	its for Gramed)			
	1979 actual	1979 actual 1980 est.	1981 est.	1979 actual	1960 est. 1981 est.	1981 est.
Program by activities:						
Aircraft				34,508	16,217	
2. Modification of mircraft			: : : : : : : : : : : : : : : : : : : :	28,572	2,860	
-				9, 236	090'6	
4. Support equipment and facilities			: : : : : : : : : : : : : : : : : : : :	5,589	4,102	:
Total direct				77 905		
Serbord eldesundeles				7.565	5,172	
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	
10.00 Total				85,470	40,731	
Financing						
Offsetting collections from: 11.00 Federal funds				96-	1.000	
				3,974	200	
_		:		501		
				-132,120	-42, 231	
24.40 Unobligated belence available, end of year:				40 231		
	• (• (•)					
Budget authority						

H

Army	Aircraft Procurement, Army	ement, Army				28 JAN 80
Progra	Program and Financing (in thousands of dollars)	n thousands o	f dollers)		1979 Fiscal year program	vear program
1	Budge	Budget plan (amounts for procurement actions programed)	nts for ogramed)	f f f t t f f f f	Obligations	1 1 1 1 1 1 1 1 1 1
	1979 actual	1980 est.	1981 est.	1979 actual	1980 est.	1981 est.
Program by activities:						
1. Aircraft	508,400			448.466	43, 334	16.600
2. Modification of mircraft	297, 300			257,743	24,557	15,000
3. Spares and repair parts	606 '99	: : : : : : : : : : : : : : : : : : : :		53, 287	6,613	2,009
4. Support equipment and facilities	77,100			52,833	15, 433	8,834
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1		111111111		
Total direct Delaturantia program	949, 709			612,329	89,937	47,443
	BR 100			190,02	7, 030	
10.00 Total	988, 508			637, 890	96,967	53,651
Financing: Offsetting collections from:						
	-17,777	:	:	-17,777		
13.00 Trust funds	-20,624			-20,624		
Non-federal sources			: : : : : : : : : : : : : : : : : : : :	-398	:	
						;
24.40 Unobligated balance available, end of year:		:		:	-150,618	-53, 651
_		:		150,618	53,651	:
	6 1 1 1 1 1 1 1 1 1					
Budget authority	949, 709			949, 709	: : : : : : : : : : : : : : : : : : : :	• • • • • • • • • • • • • • • • • • • •

Army	Aircraft Procurement, Army	nent, Army				28 JAN 80
	Program and Financing (in thousands of dollars)	thousands of	(ara) (op	4 6 9 9 1 1	1980 Fiscal year program	ear program
	Budget	Budget plen (emounts for procurement actions programed	ts for gramed)		Obligations	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	1979 actual	1980 est.	1981 est.	1979 actual	1980 est.	1981 est.
Program by activities:						
Ulrent. 1. Aircraft	:	396, 500		:	311,018	76,536
2. Modification of mircraft		420,037		• • • • • • • • • • • • • • • • • • • •	29,300	4,700
3. Spares and repair parts		63,200			55,700	4,700
•				1 1 1 1 1 1 1 1 1		1 1 6 1 1 1 1
Total direct	:	951,037	:	:	789,418	114,436
Reimbursable program		71,400			500,20	360'
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	000	101 ROB
10.00 Total		1,022,437	:		946, 306	930 , 131
Financing:						
Cafasting collections from:		-41,100			-41,100	
		-30,300	:		-30, 300	
Unobligated balance available, For completion of prior year	:	:	•	:	:	-180, 135
24.40 Unobligated balance available, end of year: For completion of prior year budget plans			. 1	. f . g . g . g . g . g	160, 135	58,607
t authority		951,037			951,037	
Budget authority:		961,837			961,837	:
	. 1 . 4 . 1 . 1 . 1	-10,800	. 1	. 1	-10,600	. !
43.00 Appropriation (adjusted)		951,037	:		951,037	:

	AILCLET	Aircraft Frocurament, Airc	מווני שנייול				
VIII	Program and Financing (in thousands of dollars)	ancing (in	thousands of			1981 Fiscal year program	eer progrem
		Budget	Budget plen (emounts for procurement actions procurement)	:		Obligations	6 1 1 1 1 1 1
dentification code ZI-ZU31-U-1-U31		79 Sctus1	1979 actual 1980 est.	1981 est.	1979 actual	1980 est.	1981 est.
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	; ; ; ; ; ;	1 1 1 1 1 1 1 1 1				
Program by activities:							284.17
Direct:				348,400			7 000
1. Aircraft	•			396.300			2000
2 Modification of mircraft	:			126 500			110,50
Schares and repair parts	:						44, 700
A School Additionent and facilities				1			
				000			768,078
******	:			005,558			55, 74
	:			200,00			
	:						623.621
10.00 Total	:			1,000, 800		•	
Financing:				•			-43.100
ā	•			-43, 100			-32 400
11.00 Federal funds	•			-32,400			
ance available,	end of year:						176,979
For completion of prior year		. ! . ! . ! . ! . ! . ! . !		. ! . ! . ! . !		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	000
	:			925, 300			,

AIRCRAFT PROCUREMENT, ARMY Introductory Statement 1-10 - 1/21/80 Section 2

DEPARTMENT OF THE ARMY	ANNUAL BUDGET ESTIMATES	FY 1981, 82	legang	Section 2 - INTRODUCTORY STATEMENT	
		Appropriation:	Aircraft Procurement, Army	Sect	والمستون والمستراء والمستر

The state of

This appropriation finances the acquisition of tactical and utility airplanes and helicopters, including associated electronics, electronic warfare and communications equipment and armament; modification of in-service aircraft; ground support equipment; and depot reparable assemblies, components and repair parts such as spare engines, transmissions, gear boxes and sensor equipment. It also funds related training devices and production base support.

AH-64 Attack Helicopter. It continues the TOW missile-launching attack helicopter AH-1 modification program which The 1981 program continues acquisition of the UH-60A BLACK HAWK utility helicopter. It initiates the advance procurement for provides additional heliborne anti-armor firepower; and continues to improve the Special Electronic Mission Africaft Fleet. In addition, the 1981 program includes modification/modernization of the CH-47 medium-lift helicopter fleet to enhance productivity, safety and survivability. the new

AIRCRAFT PROCUREMENT, ARMY

Section 3

Summary of Requirements

1-12 - 1/21/89

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)	inds of Dollars)	FY 1980	FY 1981
Appropriations	Actual	Estimate	Katamate
Aircraft Procurement, Army	508,400	396,500	348,400
Aircraft	297,300	420,037	126,500
Modification of Aircraft Spares and Repair Parts Spares and Repair Parts	66,909 77,100	63,200	54,100
Support Equipment	907 970	951,037	925,300
Total Direct Program Reimbursable Program	38,799	71,400	000,57
		1022 437	1000,800
TOTAL PROGRAM REQUIREMENTS	988,308		
Less: Portion of program to be obligated	150,618	180,135	176,976
Plus: Obligations incurred against prior	119,709	137,698	971,271
year program tunda			
	965, 156	000,086	000'666
TOTAL OBLICATIONS			

1-13 = 1/21/80

rocurement, Army of Aircraft pair Parts ment and Facilities Program	SUMMARY OF REQUIREMENTS (In Thousands of Dollars)	1082
Tocurement, Army of Aircraft pair Parts ment and Facilities Program 1 1 1 1 1 1 1 1 1 1 1 1 1	Appropriation	Fr 1902 Estimate
llities 1 1 1 1 1 1 1 1 1 1 1 1 1	Aircraft Procurement, Army	
cilities 1		810,400
cilities 1 1 1 1 1 1 1 1 1 1 1 1 1	N. S. C.	323,100
	MODIFICATION OF ATTERIT	187,300
	Support Equipment and Facilities	81,500
08/16/1		
		000 607 1
	Total Direct Frogram	
	1-16 - 1/21/80	

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AIRCRAFT PROCUREMENT, ARMY

Section 4

Budget Activity Justifications

Activity 1 - Aircraft

Activity 2 - Modification of Aircraft

Activity 3 - Spares and Repair Parts

Activity 4 - Support Equipment and Facilities

1-15 - 1/21/80

Department of the Army Annual Budget Estimates	Appropriation		FY 1981
JUSTIPICATION	Aircraft Procurement, Army	rement, Army	Budget
udget Program or Budget Project Account		(In Thousands of Dollars)	
Rudoer Activity 1 - Aircraft	Actual	Estimate	
	Fiscal Year 1979	Fiscal Year 1979 Fiscal Year 1980	Fiscal Year 1981
frect Obligations or Direct Budget Plan			
Direct Obligation	\$ 508,400	\$ 396,500	\$ 348,400
Section 1 - PURPOSE AND SCOPE	SE AND SCOPE		

PORMAT J

Provides for procurement and manufacture of airplanes, helicopters and associated aircraft armament and avionics equipment.

Section 2 - JUSTIFICATION OF FUNDS REQUIRED

This program provides for procurement of 80 utility aircraft to meet combat, tactical training and combat support needs of the Army.

carrying helicopter and is produced by Sikorsky Aircraft, Stratford, Connecticut. The BLACK HAWK is powered by two T-700 engines Helicopter, BLACK HAWK - \$288.5 million is requested for procurement of 80 UH-60A BLACK HAWK helicopters. In addition \$9.5 million is requested for advance procurement of long leadtime engines. This utility helicopter is the Army's first true squad produced by General Electric Company, Lynn, Massachusetts. The BLACK HAWK will modernize the Army's utility helicopter fleet and will enhance tactical mobility, maintainability and will enhance tactical mobility, maintainability and survivability at reduced overall operating costs.

The AH-64 is a twin engine, two place, fully integrated anti-armor weapon the HELLFIRE laser seeker anti-tank missiles. Target acquisition and guidance is accomplished by an electro-optical laser package that will provide extremely accurate fires with high first round hit probability. The mobility and flexibility of the system - \$50.4 million is requested for advance procurement of long lead items required to support the FY 82 The aircraft employs coupled with its immediate responsiveness and integration with the ground commander will provide the combat balance required to system capable of killing tanks and other armored vehicles under day/night and adverse weather conditions. Attack Helicopter. production initiation of the AH-64 defeat the Warsaw Pact threat. Helicopter, Attack, AH-64

FY 1981 Budget Piscal Year 198 Estimate 810,400 In Thousands of Dollars Appropriation Aircraft Procurement, Army Section 1 - PURPOSE AND SCOPE Annual Budget Estimates Department of the Army JUSTIFICATION Budget Program or Budget Project Account Direct Obligations or Direct Budget Plan Activity 1 - Aircraft Direct Obligations

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Sandal Bridge

Provides for procurement and manufacture of airplanes, helicopters and associated aircraft armament and avionics equipment

Section 2 - JUSTIFICATION OF FUNDS REQUIRED

attack, utility, reconnaissance and Special Electronic Mission aircraft to meet combat, tactical training and combat support needs of the Army. This program provides for a quantity of 118

be powered by two T-700 engines produced by General Electric Company, Lynn, MA. The BLACK HAWK will modernize the Army's utility helicopter fleet and will enhance tactical mobility with increases speed, lifting capacity, range, reliability, availability, The BLACK HAWK will Helicopter, BLACK HAWK - \$346.8 million is requested for procurement of 96 UH-60A BLACK HAWK helicopters. In addition, \$11.4 million is requested for advance procurement of long leadtime engines and radios. This utility helicopter is the Army's first true squad carrying helicopter. BLACK HAWK will be produced by Sikorsky Aircraft, Stratford, Connecticut. The BLACK HAWK will maintainability and survivability at reduced overall operating costs. Helicopter, Attack, AH-64 - \$311.0 million is requested for procurement of 14 AH-64 Attack Helicopters. In addition, \$88.1 million is requested for advance procurement of long lead items including engines, transmissions and mission equipment. The AH-64 is a twin engine, two place, fully integrated anti-armor weapon system capable of killing tanks and other armored vehicles under day/night and adverse conditions. The aircraft employs HELLFIRE laser seeking anti-tank missiles. Target acquisition and hit probability. The mobility and flexibility of the system coupled with its immediate responsiveness and integration with the guidance is accomplished by an electro-optical sensor package that will provide extremely accurate fires with high first round ground commander will provide the combat balance required to defeat the Warsaw Pact threat.

ground processors/facilities to provide the supported commander at Division and Corps level with real time intelligence information. The RC-12 is a twin engine, turboprop airplane equipped with a SIGINT system which intercepts, locates and classifies target signals and tranmits data to Airplane, GUARDRAIL - \$41.1 million is requested for 8 RC-12 GUARDRAIL reconnaissance airplanes.

Information acquired is displayed Acquisition System (SOTAS) EH-60B utilizes the BLACK HAWK airframe. SOTAS is an airborne target acquisition system which locates Helicopter, SOTAS - \$7.6 million is requested for advance procurement of long lead engines and airframes. The Stand-Off Target moving targets in the Division area of interest during day or night in most weather conditions, in real time at ground stations to permit tracking and timely attack of targets. 1-17 1/21/80

TAKE

Department of the Army Annual Budget Estimates JUSTIFICATION

Budget Program or Budget Project Account

Activity 1 - Aircraft

FY 1981 Budget

Section 2 - JUSTIFICATION OF FUNDS REQUIRED

Helicopter, Blectronic, EH-60A (QUICK FIX) - \$4.4 million is requested for advance procurement of long lead time engines and air-frames. The EH-60A QUICK FIX utilizes the BLACK MAWK airframe. QUICK FIX employs on-board jammers for Electronic Warfare (EW) designed to identify, locate and listen to enemy command and control radios.

1-18 - 1/21/80

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Aircraft Procurement, Army

Appropriation

Annual Budget Estimates JUSTIFICATION Budget Program or Budget Project Account Activity 2 - Modification of Aircraft	Aircraft Procurement, Army	
		Budget
	(In Thousands of Dollars	lars)
_	Actual	Estimate
	Fiscal Year 1979 Fiscal Year 1980 Fiscal Year 1981	Fiscal Year 1981
Direct Obligations or Direct Budget Flan \$ 297,300 \$ 4	\$ 297,300 \$ 420,037	\$ 396,300

FOP"AT J

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Provides for modification of items procured by the appropriation Aircraft Procurement, Army, including modification kits but excluding installation unless the item is furnished to a manufacturer who provides parts and labor under a single contract (excluding normal GFE) resulting in an end item reconfigured to a new series designation or new operational capability.

Section 1 - PURPOSE AND SCOPE

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

operational capability and extend the useful life of aircraft and equipment. Funds are requested for modification programs as \$396.3 million is requested for modification of in-service aircraft and related equipment to improve flight safety, increase follows: OV-1 - \$8.8 million is requested for AN/UPD-7 radar surveillance system data link modifications, Not Metal plus plume suppressor modification and other aircraft survivability equipment.

RC-12 - \$49.2 million is requested for modifying C-12D twin-engine, turboprop aircraft with the GUARDRAIL airborne SIGINT mission equipment. The system transmits SIGINT data to ground processors then relays processed intelligence information to G-2 subscribers to provide commanders at Division and Corps levels with real time intelligence information.

RV-1 - \$4.3 million is requested for converting older OV-1B aircraft to the RV-1D QUICK LOOK configuration with airborne ELINT mission equipment; Hot Metal plus plume suppressors modification; propeller reversing control modifications, and aircraft survivability equipment.

system and a suit of aircraft survivability features such as Hot Metal plus plume suppressors and infrared and radar jammers; AH-1 - \$120.6 million is requested for completing the AH-1G to S conversion/modernization program including a fire control and Nap-of-the-Earth (NVE) Communication equipment. NOTE: Funding details of aircraft modifications to include the type and number of each to be modified, cost and description of NOIE: runding uctains of action 8, Modification of Aircraft. the modifications are included in Section 8, Modification of Aircraft. 1/21/80 FY 1981 Budget Budget Program or Budget Project Account Activity 2 - Modification of Aircraft Department of the Army Annual Budget Estimates JUSTIFICATION Aircraft Procurement, Army Appropriation

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

CH-47 - \$197.0 million is requested for Fiberglass Rotor Blades modifications; conversion of the T55-L-11D to T55-L-712 engine; XM-130 General Purpose Dispenser modifications; AN/ALQ-156 Missile Detector System; and the initial production of 9 aircraft in modernizing the CH-47 fleet to the Improved Operational capable CH-47D configuration.

CH-54 - \$.2 million is requested for Improved Anti-Collision Lights modifications.

C-12 - \$.9 million is requested for PT 6A-38 to PT 6A-41 Engine Conversion; and automatic feathering and synchronization modification to increase aircraft performance and safety.

EH-1 - \$5.1 million is requested to finish conversion of UH-1H helicopters to the improved QUICK FIX IB EH-1H configuration; Hot Metal plus Plume suppressor modifications; and XM-130 General Purpose Dispenser modifications.

OH-58 - \$4.4 million is requested for the following modifications, improved tail rotor system and Nap-of-the-Earch (NOE) communications.

<u>Airborne Avionics</u> - \$5.8 million is requested for various airborne avionics modifications including radar altimeter, ARC-114 radios, ARN-89 Improved Beacon Identification, and improved capability of the Lightweight Doppler Navigation System, and ARC-164 radios,

	The state of the s	
Department of the Army	Appropriation	FY 1981
Annual Budget Estimates JUSTIFICATION	Aircraft Procurement, Army	Budget
Budget Program or Rudget Project Account	(In Thousands of Dollars)	
		Estimate
Activity 2 - Modification of Aircraft		Fiscal Year 1982
Direct Obligations or Direct Budget Plan		000
Direct Obligations		\$ 323,100

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Section 1 - PURPOSE AND SCOPE

Provides for modification of items procured by the appropriation Aircraft Procurement, Army including modification kits but excluding installation unless the item is furnished to manufacturer who provides parts and labor under a single contract (excluding normal GFE) resulting in an end item reconfigured to a new series designation or new operational capability.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

operational capability, and extend the useful life of the aircraft and equipment. Funds are requested for modification programs \$323.1 million is requested for modification of in-service aircraft and related equipment to improve flight safety, increase

improved operational capability; AN/UPD-7 radar surveillance system RAM improved data link modifications; propeller reversing control modifications; and aircraft survivability equipment. 00-1 - \$42.1 million is requested for the OV-1B to OV-1D configuration conversion for total force modernization

configuration. The RV-1D provides increased performance and capability resulting from new electronic countermeasures surveillance system employed at Corps level; in-flight readout modification; airborne magnetic tape recorder modifications; and AN/ALQ-162(v)2 RV-1 -313.8 million is requested for converting the older OV-1B aircraft to the improved operational capable RV-1D QUICK LOCK continuous wave radar jammer modifications. AH-1S - \$13.7 million is requested for the following aircraft survivability modifications and product improvements: Attitude reference indicator systems; AN/ALQ-136 Radar Jammer; Laser Warning Receiver; and Nap-of-the-Earth (NOE) communications equipment.

CH-47 - \$212.2 million is requested for continuing the modernization of the fleet to the improved CH-47D configuration; and also continuing the following modification program: Fiberglass Rotor Blades, converting the T55-L-11D to 755-L-712 Engine, and the AN/ALQ-156 Missile Detector.

C-12 - \$.7 million continues the engine conversion and automatic feathering modifications and initiates the recognition light modification. Funding details of aircraft modifications to include the type and number of each to be modified, cost and description of infications are included in section 8 Modification of Aircraft the modifications are included in Section 8, Modification of Aircraft.

Department of the Army Annual Budget Estimates JUSTIFICATION	FY 1981 Budget
Appropriation	Budget Program or Budget Project Account
Aircraft Procurement, Army	Activity 2 - Modification of Aircraft
Section 2 - JUSTIFICATION OF FUNDS REQUESTED	S REQUESTED
0H-58 - \$5.0 million continues the following modification programs: Improve communications.	following modification programs: Improved Tail Rotor system and Nap-of-the-Earth (NOE)

A TA

Airborne Avionics - \$2.4 million continues various product improvement programs as follows: Improved MK-1564()/AR Head Set, AN/ARN-89 Improved Beacon Identification, ARC-164 Radio, and Improved capability of the Lightweight Navigation Doppler System. RC-12 CUARDRAIL - \$30.9 million is required to continue modifying C-12D aircraft with the GUARDRAIL airborne SIGINT mission equipment. EH-1 - \$2.3 million is required for the AN/ALQ-156 Missile Detector System.

Department of the Army			1981 74
Annual Budger Estimates JUSTIFICATION	Appropriation Air	Aircraft Procurement, Army	Budget
Budget Program or Budget Project Account		(In Thousands of Dollars)	
Activity 2 - Charge and Densie Dense	Actual	Estimate	
warred observed and nepart raits	Fiscal Year 1979	Fiscal Year 1979 Fiscal Year 1980	Fiscal Year 1981
Direct Obligations or Direct Budget Plan			
Direct Obligations	606,99	\$ 71,300	\$ 126,500

FORMAT J

Section 1 - PURPOSE AND SCOPE

Provides for procurement of depot reparable spares and repair parts including provisioning (initial issue), replenishment, mobilization reserve, and avionics spares.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

This program provides for centrally managed, high dollar value, depot reparable spares and repair parts such as engines, trans-missions, and gear boxes. Due to the high dollar value of these components, they are intensively managed.

Initial Provisioning - \$85.8 million provides for procurement of spares and repair parts to support initial fielding of new principal items or modifications of principal items. The "initial fielding" period normally extends 1 - 2 years past IOC (until sufficient experience has been accumulated to permit changeover to replenishment procedures).

Replenishment Spares (Peacetime) -\$31.0 million provides for procurement of spares and repair parts to support operations subsequent to initial fielding of a new or modified principal item.

Avionics Spares - \$9.7 million provides for Operational Readiness Float (ORF) Line Replaceable units required to sustain readiness of fielded alreraft and alreraft being produced.

Department of the Army	Appropriation	FY 1981
Annual budget Estimates JUSTIFICATION	Aircraft Procurement, Army	Budget
Budget Program or Budget Project Account	(In Thousands of Dollars)	
		Estimate
Activity 3 - Spares and Repair Parts		Fiscal Year 1982
Direct Obligations or Direct Budget Plan		\$ 187,300
Ulrect Ubligations		***
Section 1 -	Section 1 - PURPOSE AND SCOPE	
•		•

Provides for procurement of depot reparable spares and repair parts including provisioning (initial issue), replenishment, mobilization reserve, and avionics spares.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Initial Provisioning - \$127.1 million provides for procurement of spares and repair parts to support initial fielding of new principal items or modifications of principal items. The "initial fielding" period normally extends 1 - 2 years past IOC (until sufficient experience has been accumulated to permit changeover to replenishment procedures).

Replenishment Spares (Peacetime) - \$51.5 million provides for procurement of spares and repair parts to support operations subsequent to initial fielding of a new or modified principal item.

Avionics Spares - \$8.7 million provides for Operational Readiness Float (ORF) Line Replaceable Units required to sustain readiness of fielded aircraft and aircraft being produced.

Fiscal Year 1981 Budget FY 1981 \$ 54,100 Estimate (In Thousands of Dollars) Aircraft Procurement, Army Fiscal Year 1980 63,200 Fiscal Year 1979 Appropriation 77,100 Actual Section 1 - PURPOSE AND SCOPE Activity 4 - Support Equipment and Facilities Department of the Army Annual Budget Estimates JUSTIFICATION Budget Program or Budget Project Account Direct Obligations or Direct Budget Plan Direct Obligations

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maintenance shelters; for common ground equipment including tool sets, shop sets and components thereof, ground handling/servicing equipment, special test and diagnostic equipment, flight simulators and other support equipment; for industrial facilities and Provides for avionics support equipment including air traffic control equipment, avionics communications equipment and avionics for war consumables.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

The request for this activity is comprised of the following items:

Avionics Support Equipment - \$3.1 million is requested for AN/TSC-61 Flight Coordination Centrals. It is a transportable unit that provides facilities for air traffic coordination, air defense warning, and in-flight assistance on a continuing basis, located in high density airfield area.

Servicing Equipment provides for the acquisition of self-propelled crane, rail trailer, self propelled elevating maintenance stand and engine adapters. The Airfield Support Equipment budget item provides the necessary Air Traffic Control and navigational and Common Ground Equipment - \$22.9 million is requested for procurement of tools and shop sets, ground handling equipment, airfield ground equipment to support the Army Aviation Mission at fixed Army airfields and heliports. The AN/PRC-90 Survival Radio is a compact personal emergency UHF radio set used principally for air rescue operations and provides ground-to-ground air communications and a homing signal. Individual items that cost less than \$.9 million are test equipment for maintenance of Avionics, support equipment, AN/PRC-90 Survival Radios and individual items that cost less than \$.9 million. Tools and Shop sets are Ground Handling/ required to fill shortages, replace obsolete equipment and implement the three level maintenance concept. Airborne Surveillance and Air Traffic Control hardware.

Activity 4, Support Equipment and Facilities 1981 Budget Budget Program or Budget Project Account W Department of the Army Annual Budget Estimates JUSTIFICATION. Aircraft Procurement, Army Approprietion

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Section 2 - JUSTIFICATION OF FUNDS REQUESTED

DMPE request provides Industrial Facilities - \$21.5 million is requested including \$7.1 million for Provision of Industrial Facilities (PIF), \$3.8 million for Depot Maintenance Plant Equipment (DMPE) and \$10.6 million for Manufacturing Methods and Technology Program (MMAT). The PIF request provides for rehabilitating real property and industrial plant equipment at the Stratford, Conn. Army Engine Plant (AVCO Lycoming) where engines for UH-1, AH-1, CH-47, OV-1 (aircraft) and XM1 (tank) are manufactured. DMPE request provides for facilitization of Corpus Christi, TX Army Depot to assume overhaul of T-700 engine, turbine engine fuel controls, BLACK HAWK airframe repair and installation of environmental control equipment at the Depot. MMST request will allow completion of effort on composite structures for the tail rotor, tail section and main rotors of Army helicopters. Heavy effort on improved methods for manufacturing gas turbine engines continues with emphasis on turbine blades and compressor components.

War Consumables - \$6.6 million is requested for 7 and 19 tube 2.75 inch Lightweight Rocket launchers to be used on the AH-1 COBEA/TOW and AH-64 attack helicopters.

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FY 1981 Budget Fiscal Year 198 Estimate 81,500 (In housands of Dollars) Appropriation Section - PURPOSE AND SCOPE Activity 4 - Support Equipment and Facilities Annual Budget Estimates **PUSTIFICATION** Budget Program or Budget Project Account Direct Obligations or Direct Budget Plan Direct Obligations

Provides for avionics support equipment including air traffic control equipment, for common ground equipment including tool sets, shop sets and components thereof, ground handling/servicing equipment, flight simulators and other support equipment; for component improvement; for industrial facilities; and for war consumables.

Section - JUSTIFICATION OF FUNDS REQUESTED

The request for this activity is comprised of the following items:

\$1.6 million for procurement of AN/TSC-61 Flight Coordination Avionics Support Equipment - \$3.0 million is requested as follows: \$1.6 rentrals and \$1.4 million for Position Locating Reporting Systems (PLRS). Common Ground Equipment - \$46.9 million is requested as follows: Tools and Shop Sets, Ground Handling Equipment, Flight Simulators, Airfield Support Equipment, and Individual items costing less than \$.9 million. Tools and Shop Sets include aviation unit and fixed Army airfields. This request replaces aging, obsolete, unreliable hard-to-maintain electronics hardware. Individual items intermediate maintenance shop sets, maintenance shelters to provide urgently needed equipment to fill the 3 level maintenance system. Ground Handling Equipment such as self propelled crane, rail trailers, and small protable analyzer diagnostic equipment Flight Simulator is a new generation simulator utilizing computer generated imagery visual systems. Urgently needed Airfield Support Equipment such as Control Towers and Communication Consoles are required to improve Air Traffic Control Capability at The UH-60A costing less than \$.9 million are test equipment for maintenance of avionics, airborne surveillance and Air Traffic Control are required to improve efficiency and safety while enchancing total Army air mobility. The AH-1 Flight/Weapons Simulator provides visual and instrument flight and gunnery simulation capable of independent or integrated crew training,

million for Depot Maintenance Plant Equipment (DMPE), and \$8.4 million for Manufacturing Methods and Technology (MMST). FY 82 Industrial Facilities - \$24.9 million is requested as follows: \$10.4 million for Provisions of Industrial Facilities (PIF), programs are on-going and continues projects which began in prior years.

War Consumables - \$6.7 million is requested to procure 7 and 19 tube 2.75 inch Lightweight Rocket launchers for the AH-IS COBRA/ TOW and AH-64 attack helicopter,

AIRCRAFT PROCUREMENT, ARMY

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Section 5

Comparison of Program Requirements and Financing

Comparison of FY 1980 program requirements as reflected in FY 1980 budget with FY 1980 program requirements as shown in FY 1981 budget.

Comparison of FY 1980 financing as reflected in FY 1980 budget.

Comparison of FY 1979 program requirements as reflected in FY 1980 budget with FY 1979 program requirements as shown in FY 1981 budget.

Comparison of FY 1979 financing as reflected in FY 1980 budget with FY 1979 financing as shown in FY 1981 budget.

COMPARISON OF FY 1980 PROGRAM REQUIREMENTS AS REFLECTED IN FY 1980 BUDGET WITH FY 1980 PROGRAM REQUIREMENTS AS SHOWN IN FY 1981 BUDGET

SUMMARY OF REQUIREMENTS	(In Thousands of Dolla	176)	
Appropriation: Aircraft Procurement, Army Requirements Per FY 80 Budget	Total Program Requirements Per FY 80 Budget	Program Requirements Per FY 1981 Budget	Increase (+) or Decrease (-)
Activity 1 - Aircraft Activity 2 - Modification of Aircraft Activity 3 - Spares and Repair Parts Activity 4 - Support Equipment and Facilities	355,800 442,200 71,500 76,900 946,400	396,500 420,037 71,300 63,200	+40,700 -22,163 - 200 -13,700 - 4,637

Explanation by Activity

Activity 1 - Aircraft - Net increase is due to Congressional increase to procure 10 C-12 aircraft (+ \$12,200) and 15 AH-1 helicopters (+ \$29,500) and decrease to UH-60A helicopter program (- 1,000) for factory training.

Activity 2 - Modification of Aircraft - Decrease is due to Congressional action to reduce the following programs: EH-60A Modifications (- \$14,500) transferred to RDTE; Antenna Coupler for AN ARC-114 radio (- \$2,900) transferred to RDTE; and EH-1 Modifications (- \$4,300) transferred to MIPA (HAWK Mods reprograming action). Activity 3 - Spares and Repair Parts - Net decrease is due to Congressional action to increase initial spares (+ \$500) for support of AH-1 procurement and decrease to replenishment spares (- \$700) for the Undergraduate Helicoper Pilot Training Program (UHPT).

Activity 4 - Support Equipment and Facilities - Decrease is due to Congessional action to transfer the Component Improvement Program (- \$8,700) to RDTE. Decrease is also due to Common Ground Equipment (- \$2,500) transferred to OMA and MIPA for reprograming actions, and Industrial Facilities (- \$2,500) being transferred to MIPA for reprograming action.

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COMPARISON OF FY 1980 FINANCING AS REFLECTED IN THE FY 1980 BUDGET WITH FY 1980 FINANCING AS SHOWN IN FY 1981 BUDGET	FINANCING AS REFLECTI WITH FY 1980 FINANCI 1981 BUDGET	Q2 NG		
	Đ,	(In Thousands of Dollars)		
Appropriation	Financing Per FY 1980 Budget	Financing Per FY 1981 Budget	Increase (+) or Decrease (-)	
Program Requirements, (Total) Program Requirements (Service Account) Program Requirements (Reimbursable)	1,030,300 (946,400) (83,900)	1,022,437 (951,037) (71,400)	- 7,863 + 4.637 -12,500	
Less: Anticipated reimbursements	83,900	71,400	-12,500	
deprograming from prior year budget plans				
Uncollgated balance available from prior year to finance new budget plans				
Unobligated balance transferred from other accounts				
Add: Unobligated balance transferred to other accounts				
Unobligated belance available to finance subsequent year budget plans BIDGET ANTHORITY	946,400	951,037	+ 4,637	
X	007 770	061 037	415 607	Τ
Appropriation Transfer to other accounts	946,400	-10,800	-10,800	
Appropriation (Adjusted)	946,400	951,037	+ 4,637	

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Net changes in financing is due to Congressional actions (+ \$15,437) and DA Reprograming Actions (- \$10,800) explained on previous page.

EXPLANATION OF CHANGES IN FINANCING

COMPARISON OF FY 1979 PROGRAM REQUIREMENTS AS REFLECTED IN FY 1980 BUDGET WITH FY 1979 PROGRAM REQUIREMENTS AS SHOWN IN FY 1981 BUDGET

SUMBARY OF REQUIREMENTS	(In Thousands of Dolla	(8)	
Appropriation: Total Program	Total Program		Increase (+)
Aircraft Procurement, Army	Requirements Per FY 80 Budget	Program Requirements Per FY 1981 Budget	Or Decrease (-)
A o bissister 1 - A improve file	, or oor		
ACLIVITY 1 AIRCIAIC	209,406	208,400	- 1,006
Activity 2 - Modification of Aircraft	297,200	297,300	+ 100
Activity 3 - Spares and Repair Parts	66,903	606,99	,
Activity 4 - Support Equipment and Facilities	76,200	77,100	006 +
	949,709	949,709	0

Explanation by Activity

Activity 1 - Aircraft - Decrease to UH-60A BLACK HAWR (-\$1,000) to Component Improvement Program (Activity 4).

Activity 2 - Modification of Aircraft - Increase to CH-54 Modifications (+ \$100) for Improved Anti-Collision Lights.

Activity 3 - Spares and Repair Parts - Increase due to rounding.

Activity 4 - Support Equipment and Facilities - Net change due to increase to Component Improvement Program (+ \$1,000) and decrease to Common Ground Equipment (- \$100)

	5	in Thomsands of Bolleral	
Appropriation Aircraft Procurement, Army	Fluencing Per FY 1980 Budget	Huencing Per FY 1981 Budget	Increase (+) or Decrease (-)
Program Requirements, (Total) Program Requirements (Service Account) Program Requirements (Reimbursable)	1,024,709 (949,709) (75,000)	988,508 (949,709) (38,799)	- 36,201 (-0-) (- 36,201)
Less: Anticipated reimbursements	000,57	38,799	- 36,201
Reprograming from prior year budger plans			
Unobligated balance available from prior year to finance new budget plans			
Unobligated balance transferred from other accounts			
Add: Unobligated balance transferred to other accounts			
Unobligated balance available to finance subsequent year budget plans	907	000	
BUDGET AUTHORITY	242,103	249,109	
Appropriation	949,709	949,709	

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EXPLANATION OF CHANGES IN PINANCING

None

AIRCRAFT PROCUREMENT, ARMY

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Section 6

Selected Data Sheets

NOT USED

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AIRCRAFT PROCUREMENT, ARMY

Section 7

Analysis of Unobligated Balances

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AIRCRAFT PROCUREMENT, ARMY

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Analysis of Unobligated Balances - FY 1981 Program* Summary by Category

		Estimate	d Unobligated
Category		Dollars (Millions)	llars % of total lions) Unobligated
Reserved to support contracts		\$ 173.2	73.5%
cugineting changes Other		35.8	15.2%
	Total Unobligated FY 1981	\$ 235.6	100.0%

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unobligated balances here have been grouped into three general categories and are detailed below. These unobligated amounts will therefore be required in subsequent fiscal years to complete the procurement of the FY 81 program. Based on past experience, it is predicted that the above amounts will remain unobligated at the end of FY 81. Reasons for the

Explanation by Category

Reserved to Support Contracts:

- Held pending award of firm contracts as opposed to letter orders.
- Amounts reserved for incentive contract payments نت نه
- Reimbursements to be made to the Army Stock Fund for short leadtime materiel purchase as Government-furnished equipment for producers.
 - Amounts held to support Product Improvement Programs; modification for retrofit during production;
- Contractor claims, reserves to cover potential liabilities for contracts containing escalation clauses for labor or materiel cost increases and price redeterminations. modifications ordered by customers.
 - Contract close-out costs; packing, crating, handling and packaging and loading charges.
- Government-furnished equipment breakout procurements; federal excise tax and sales tax payments; preparation of manuals and technical data and reserve for completion of construction elements of production base support facilities projects. ò
 - Delay due to design or testing difficulties.
 - Insufficient procurement detail involving reimbursable orders. 44.43.4
- Items released to Army by other customers too late to permit obligation in FY 1981. Develop adequate competitive procurement or technical data package.
- * Includes estimated FY 80 carry-over and other customer reimbursable programs

AIRCRAFT PROCUREMENT, ARMY (Continued)

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Engineering Changes: 5

- Engineering costs in support of production (obligated only as expenses are incurred).
- Validated engineering change orders to be incorporated into the current manufacturing process. Engineering changes as a result of acceptance testing, destructive and proving ground tests. Amounts reserved to support engineering change proposals and value engineering proposals.
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Other: ر

- Changes to the previously planne, method of procurement (i.e. competitive in lieu of sole source). ъ. С.
 - Extension to bid opening dates.
- Additional time required to complete audits of cost data and obtain contractor cost data. Unfavorable pre-award surveys and extended negotiations.
- Held pending validation of production capability of low bidder.
- Attaining a satisfactory production rate prior to awarding additional work.

Army
Procurement,
Aircraft

Section 8

Modification of Aircraft Modification Summary Sheets Exhibits P-3a OV-1 MOHAMK RC-12 GUARDRAIL RV-1 AIRPLANE, RECONNAISSANCE AH-1 COBRA CH-47 CHINOOK CH-54 TARHE C-12 AIRPLANE, CARCO EH-1 HELICOPTER, ELECTRONIC OH-58 KIOMA	Page Number 1 - 42 1 - 55 1 - 59 1 - 71 1 - 87 1 - 99 1 - 102 1 - 106
	1

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CONSOLIDATED P-3a EXHIBIT

P-3a Exhibits for modifications which are to be applied to several different aircraft in FY 81/82 are included as follows:

Modification	Aircraft to which applicable in FY 81/82	Page Number
XM-130 General Purpose Dispenser	CH-47C, OV-1D, RV-1D, EH-1H/X.	1 - 137
NOE Communications	AH-1S, OH-58A/C (AAH covered in separate document).	1 - 143
AN/ALQ-156 Missile Detector System	OV-1D, RV-1D, CH-47C, EH-1H/X	1 - 147
AN/ALQ-162(V)2 Continuous Wave Radar Jammer	0V-1D, RV-1D	1 - 152
AN/ARC-164 Radio	OV-1	1 - 155

Aircraft Modification, Army FY 81 President's Budget				
Aircraft (Dollars in Millions)				
OV-1 MOHAWK	81			82
	# Acft	Cost	# Acft	Cost
Conversion Program UPD-7 (RAM Imp) Data Link Hot Metal + Plume Suppressor		5,600	•	25.100 5.227 0
<pre>KY-58/TSEC Voice Security Propeller Reversing Control *XM-130 General Purpose Dispenser</pre>	86 26	.030 0 .522	145	. 285
*ARC-164 UHF Radio Receiver *ALQ-156 Missile Detector System *ALQ-162(V)2 CWR Jammer TOTAL OV-1	86	.130 0 0 8.841	91	7.820 3.668 42.100
RC-12D TOTAL RC-12D	ω	49.200	∞	30.900
RV-1D				
QUICK LOOK II Conversion Hot Metal + Plume Suppressor *XM-130 General Purpose Dispenser *ALQ-156 Missile Detector System *ALQ-162 Radar Jammer *ALQ-162 Radar Jammer	с ъ	1.451 1.216 .023 0 0	2 72 27	4.803 0 0 2.110 2.049
ALQ-133 Mag Tape Recorder TOTAL RV-10		1.625		2.626 2.149 13.785
*Consolidated P-3a	1-39	1-39 -1/21/80		

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Aircraft Modification, Army FY 81 President's Budget				
Aircraft (Dollars in Millions)				
AH-1S	81			82
	# Acft	Cost	# Acft	Cost
Conversion/Modernization Hot Metal Plus Plume Suppressor AN/ALQ-144 Is Jammer Improved Attitude Bedding Defender Suctor	49 49 49 8	109.770 .801 1.790 2.049	0 0 0 71	2.00
	50 0 61 TOTAL AH-1S	5.130 0 1.060 120.600	10 125 193	3.344 5.445 2.315 13.700
CH-47				
Fiberglass Rotor Blades Engine Conversion *XM-130 General Purpose Dispenser *AN/ALQ-156 Missile Detector System Modernization Program	77 56 100 130 9 TOTAL CH-47	25.620 12.038 3.472 9.467 146.367	92 65 0 87 19	26.000 14.887 0 8.496 162.771 212.154
CH-54				
Improved Anti-collision Lights	36 TOTAL CH-54			0
EH-1				
QUICK FIX * XM-130 General Purpose Dispenser Hot Metal + Plume Suppressor *ALQ-156 Missile Detector System	19 30 70TAL EH-1	4.213 .086 .754 5.053	30	0 0 0 2.329 2.329
* Consolidated P-3a	1-40 - 1/21/80	1/21/80		

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Aircraft Modification, Army FY 81 President's Budget	(Dollars in Millions)	# Acft	OH−58 *Imd VHF~FM NOE Comm 262	Imp Tail Rotor System 125 TOTAL	Airborne Avionics	APN-209 Radar Altimeter Imp MK-1564/AR Head Set ARC-114 Homing (PIP 0034) ARC-114 Radio (PIP 0100) ARC-114 Radio (PIP 0106) ARC-114 Radio (PIP 0106) ARC-116 Radio (PIP 0106) ARN-89 Direction Finder RT-1167/ARC-164 Radio LDNS Improved Reliability TOTAL	Engine Conversion Automatic Feather/Synchronization Recognition Light & Electrical System TOTAL	*Consolidated P-3A.
		Cost	3.126	$\frac{1.274}{4.400}$		1.933 0 .600 .265 .405 .950 .879 .768	. 617 . 331	
		# Acft	155	327			18 18 66	
	82	Cost	1.669	3.331		. 365 . 0 0 0 0 . 715 . 715 . 496 . 496	.391 .210 .116 .717.	

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Reports Control Symbol DD-CGFP(AR) 1092	1.1	AIRCRAFT HODIFICATIONS			EXHIBIT	P-3
			:		Date: Jan 80	·
NODEL: 0V-1D	T Y	19 80	FY 1981	1	FF 19	82
<u> </u>	Quantity (2)	Amount (Thousands)	Quantity (4)	Amount (Thous ands) (5)	Quantity (6)	Amount (Thousands) (7)
OV-1D Conversion	7	7,099.0			9	25,100.0
UPD-7 (RAM IMPROVED) Data Link	, c	3,768.0		5,600.0		5,227.0
ssor	30	4,445.0	7	2,559.0		
**Vertical Indicator Display System (VIDS) KY-58/TSEC Voice Security	83 33	496.0	98	30.0		
**Crounding Receptacles	145	11.0	}			,
*AN/APR-44 CW Radar Warning Receiver	29	1,532.0			145	285.0
	09	771.0	26	522.0 130.0		
**AN/APR-39 Radar Warning Receiver		173.0			5	6
*AN/ALQ-162(V)2 CW Radar Jammer				٠,	45	3,668.0
TOTAL		44,245.0		8,841.0		42,100.0
R* P3a not included. No FY 81/82 programs						
		1-42	1/21/80	RT 11		
				- 1		

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CLASSIFICATION

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DATE 3 Dec 79 MODIFICATION TITLE AND NO. OV-1D Conversion, PIP # 1-72-01-0001 AIRCRAFT MODIFICATION APPROPRIATION/BUDGET ACTIVITY REPORTS CONTROL SYMBOL (SSN AZ3530) **DD-COMP (AR) 1092**

W. 10

AIRCRAFT AFFECTED: 0V-1B

APA/2

or Side Looking Airborne Radar (SLAR) mission, thereby increasing the surveillance capability of the aircraft. modernize the older OV-1B aircraft to a standard OV-1D configuration to accept the palletized and improved DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. This modification program will improved sensor will allow a single converted aircraft to be interchanged to fly either the Infrared (IR) IR and SLAR packages, thus, increasing the operational capability and flexibility of the OV-1 aircraft.

strength landing gear; increased horsepower engine and matching propellers; addition of two fuselage access Airframe changes will include additional airframe components of the OV-1D configuration, i.e., increased

Currently the Army has in operation for surveillance the older model OV-1B equipped only for SLAR and older Model OV-1C which have only the capability for IR.

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DEVELOPMENT STATUS:

Preproduction Prototype completed - December 1968 Engineering/Service Tests Completed - June 1971 Type Classified Standard - September 1972

FY 84	Forecast	20 84
FY 83	Forecast	20 83
FY 82	Forecast	1) }
MILESTONES:	Contract Award	Delivery Starts

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PAGE NO.

P-1 SHOPP LIST ITEM NO. Edition of 1 May 76, may be used.

DRSTS-C Form 1 Apr 78

CLASSIFICATION

EXHIBIT P. 3a

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OV-1D CONVERSION PIP # 1-72-01-0001

Exhibit P-3a

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

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OV-1D CONVERSION PIP # 1-72-01-0001

Exhibit P-3a

PROJECT FINANCIAL PLAN: (Amounts in thousands of dollars)

FY 84 Qty/Amount	6/25,100.0 6/14,649.0 5/8,586.0
FY 83 Qty/Amount	6/14,649.
FY 82 Qty/Amount	6/25,100.0
FY 81 Qty/Amount	0/0
FY 80 Qty/Amount	0/0 0.660,7/1 0
FY 79 Qty/Amount	6/7,743.0 6/7,897.0
FY 78 Qty/Amount	6/7,743.0
S FY 77 Qty/Amount (37/65,021.0 6/6,351.0
PRIOR YEARS Qty/Amount	37/65,021.0

TOTAL PROGRAM Qty/Amount

79/142,446.0

METHOD OF IMPLEMENTATION: Installation will be accomplished at the contractor's plant on a production line basis.

KIT DELIVERY SCHEDULE: Not applicable.

INSTALLATION SCHEDULE:

Inductions

FY 85	1 2 3 4	1
FY 84	1 2 3 4	1 2 1 2
FY 83	1 2 3 4	1 2 1 2
FY 82	1 2 3 4	1 1 2

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81
FY

ı	CLASSIFICATION	1						FY 81	BUDGET ESTIMATE	r imate .
<u> </u>	REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	OL SYMBOI			AIRCRAFT	AIRCRAFT MODIFICATION	NOI		DATE Jan 80	80
وزجد	APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AZ3530)	ATION/BUDGET A((SSN AZ3530)	CTIVITY		MOI	DIFICATION JPD-7 (RAM	MODIFICATION TITLE AND NO. UPD-7 (RAM Improved) Data Link, PIP # 1-77-01-0876	a Link, PIP	# 1-77-01-	-0876
<u> </u>	AIRCRAFT AFFECTED:	ED: 0V-1D						•		
	DESCRIPTION/JUSTIFICATION: Type of Improvement - R currently installed in Korea and Europe OV-1 aircra experiencing extreme difficulty in maintaining the tactical and immediate need for state-of-the-art pr 50 hour MTBF on some components and a 4 hour Mean T components with latest state-of-the-art technology.	TIFICATION lled in Ko treme diff mediate ne some comp latest st	Type ea and culty if for sonerts are-of-t	nprovement oe OV-1 air intaining tl of-the-art 4 hour Mean t technolog	of Improvement - Reliability and Maint Europe OV-1 aircraft is FY 59 vintage in maintaining the operational readines state-of-the-art product improvements. and a 4 hour Mean Time Between Repair. the-art technology.	ty and Main 59 vintage nal readine: provements. sen Repair.	equipment. ss of that s: Their syst. This PIP r	The interim data link () Accordingly, the user is ystem. USAREUR has state em is currently experienc eplaces those high mortal	n data linl , the user EUR has sta tly experie e high mort	k (UPD-7) is sted a encing tality
	DEVELOPMENT STATUS: Hardware utilized are standard components encoder and decoder which contractor has developed on internal prototypes, and qualification Phase I retrofit kits, data, and	- P	ware utilized contractor h tion Phase I	l are standa nas develope retrofit ki	ard componer ed on interr its, data, ¿	nts of exise hal R&D funce	Hardware utilized are standard components of existing systems with the exception of digital which contractor has developed on internal R&D funding. This PTP would procure three liication Phase I retrofit kits, data, and provide Phase I (A-J) equipment and integration.	with the exemple. The would propose the contract of the contra	ception of ocure three	digital e ration.
446	MILESTONES: Contract Award Qual Test Complete Delivery Start Kit Installation Start Kit Installation complete	ete n Start n complete	FY 77 Sep 77	FY 78	FY 79 3Q		FY 84 20 30	FP 96	FY 85	
	PROJECT FINANCIAL PLAN:	AL PLAN:	(Amounts in	s in thousands of dollars)	of dollars)		•			
	FY 77 APA 9,625.0	FY 78 894.0	FY 79 294.0	FY 80 3,768.0	FY 81 5,600.0	FY 82 5,227.0	FY 83 15,479.0	FY 84 15,149.0	FY 85 13,330.0	TOTAL 69,366.0
- T				1	1-46 - 1/21/80	17 80 811	11			
C	DRSTS-C Form 2075	Edition of 1 M	Edition of 1 May 76, may be used.	P-1 SHOPP LIST ITEM NO.	PAGENO.		CLAS	CLASSIFICATION	ı	

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Exhibit P-3a Page 2 of 3	

		UPD-7 (RA	(RAM IMPROVED) DATA LINK PIP # 1-77-01-0876	TA LINK 6		Exhibit P-3a Page 2 of 3
BASIS FOR COST ESTIMATE:		(Amounts in thousands of dollars)	f dollars)			
	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
	Qty Cost	Qty Cost	Qty Cost	Qty Cost	Qty Cost	Qty Cost
Prototype/Qual	3 2,136.0					
N/R & Data	ຕົເ					
Mod Kits	14 3,650.0	•				•
Engr Support	552.0	141.0	294.0	247.0	463.0	0.479
Alreratt FECF & Proto		73.0		6		
Pre-Production Contr GFF				611.0	642.0	4.553.0
Phase II Integ					4.495.0	
A/C Kits						
Contracts for GFE						
Production Contr						
Installation (OMA)						
TOTAL (APA)	9,625.0	894.0	294.0	3,768.0	5,600.0	5,227.0
	FY 83	FY 84	FY 85	TOTAL		r
	Qty Cost	Qty Cost	Qty Cost	Qty Cost		
Prototype/Qual				7		
N/R & Data				3,287.0		
Engr Supt	620.0	641.0		3,632.0		
Aircraft FECP & Proto				753.0		
GFE GFE				5,806.0		
Phase II Integ	r			4,495.0		
A/C Kits Contracts for GFE	10,111.0		13,330.0	23,441.0		
Production Contr Installation (OMA)	1,395.0	14,508.0 (586.0)		15,903.0 (1,205.0)		
TOTAL	15,479.0	15,149.0	13,330.0	90 69,366.0		

1-47 - 1/21/80

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UPD-7 (RAM IMPROVED) DATA LINK

Exhibit P-3a Page 3 of 3 PIP # 1-77-01-0876

concurrent with conversion program. Aircraft provisions installed concurrent with APS-94F funding identified under ECCM for AN/APS-94F Radar. METHOD OF IMPLEMENTATION: Modification of Europe and Korea assets will be by contractor's team composed of airframe and electronic contractor personnel. Balance of aircraft will be retrofited at direct support maintenance level via MWO action. Provisions will be installed in as many conversion OV-lDs as possible

FY 85	30	FY 85	15 15 15
FY 84	15 15 30	FY 84 1 2 3 4	15 30
PY 83		FY 83	
KIT DELIVERY SCHEDULE:	Phase II A/C Mod Kits	INSTALLATION SCHEDULE:	Phase II A/C Mod Kits

EXHIBIT P. 3a

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CLASSIFICATION

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STIMATE		2302
FY 81 BUDGET ESTIMATE	DATE 3 Dec 79	PIP # 1-75-01-(
	AIRCRAFT MODIFICATION	MODIFICATION TITLE AND NO. Hot Metal Plus Plume Suppressor, PIP # 1-75-01-0302
CLASSIFICATION	REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AZ3530)

0V-1D AIRCRAFT AFFECTED:

is an engine nacelle/exhaust modification which reduces the infrared (IR) signature by using ram air for cooling suppressor assembly (B Kit); and static covers for each engine. The IR suppressor system is required to comple-The Hot Metal Plus Plume Suppressor ment the AN/ALQ-147() IR Jammer to defeat the growth threats, and will become mission essential in operations exhaust duct wall surfaces (hot metal) and exhaust gases (plume dilution). The suppressor system consists of airframe mod kit provisions, including covers for use in unsuppressed configuration; louvered scarfed shroud Type of Improvement - Operational Capability. DESCRIPTION/JUSTIFICATION: against growth threat.

endurance (RAM) testing was completed May 78. A TECOM independent Evaluation Report was issued Jul 78. The ECP DEVELOPMENT STATUS: Engineering development contract was awarded Jun 75, ED prototype fabricated Apr 76. Contractor developmental testing and government effectiveness (IR measurements) testing is complete. Government for the airframe provisions was approved Apr 77, and contract mod for incorporating provisions during the conversion program was awarded Aug 77.

Siles

MILES TONES:	FT 77 EST DATE	FY 78 EST DATE	FY 79 EST DATE	FY 80 EST DATE	FY 81 EST DATE	FY 82 EST DATE
Airframe Provisions Mod Kits	Aug 77	Feb 78 (5 mo)	Feb 79 (5 mo)	20 80 (5 mo) 20 80 (7 mo)	10 81 (5 mg)	
Suppressor B Kit		Sep 78 (13 mo)	Dec 78 (13 mo)	20 80 (9 mo)	10 81 (9 mo)	
Mod Kits Suppressor B Kit			20 80	4Q 80 1Q 81	3Q 81 4Q 81	
Installation Starts: Mod Kits Suppressor B Kit	(Installed	Installed on a mission required basis)	ufred basis)	10 81	40 81	

2075 DRSTS-C Form 1 Apr 78

Edition of 1 May 76, may be used. P-1 SHOPP LIST ITEM NO.

PAGE NO.

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OV-1D HOT METAL PLUS PLUME SUPPRESSOR PIP # 1-75-01-0302

Exhibit P-3a Page 2 of 2

(Amounts in thousands of dollars) PROJECT FINANCIAL PLAN:

45174

TOTAL PROCRAM	QTY COST	11,248.0
· FY 82	OTY COST	
FY 81	OTY COST	7,559.0
FY 80	QTY COST	4,445.0
FY 79	OTY COST	0.70.1
FY 78	OTY COST	1,/2/.0
FY 77	OTY COST	280.0

(Amounts in thousands of dollars) BASIS FOR COST ESTIMATE:

	Airframe Provisions Mod Kits	Supressor B Kits Recuring:	Virframe Provisions 6	4od Kits	Supressor B Kits	Application: Mod Kits (OMA-2207)	TOTAL APA
QTY COST	285.0		295.0		-		580.0
FY 78 QTY COST	473	634.0	6 189.0		5 431		1,727.0
	0.	0.	0.		431.0 16		0.
FY 79 QTY COST		165.0	6 233.0 12 366.0		16 1,539.0		1,937.0
PY QTY			12	17	30 3		
FY 80 QTY COST			366.0	635.0	,444.0		4,445.0
QTY COST			6 175.0	32 1,45	7 9.	33 (35	2,5
			75.0	27.0	57.0	32.0) 1	2,559.0
FY 82 QTY COST						6 (187.0)	
TOTAL			36	67	28	67	
TOTAL PROGRAM QTY COST	285.0	799.0	1,258.0	2,062.0	6,371.0	(539.0)	11,248.0

the field and installed on a mission required basis. Installation time for the B Kit is estimated at 8 man-hours by The suppressor B Kit is to be provided to airframe m. ifications will be accomplished in the field by contract and/or depot contact teams. Installation for METHOD OF IMPLEMENTATION: Installation of 42 airframe provisions will be incorporated during the OV-1 cyclic overhaul and conversion programs beginning with the FY 77 funded delivery aircraft. The balance of the field application of airframe provisions is estimated at 400 man-hours. AVUM level personnel.

FY 82 4 | 5 FY 80 INSTALLATION SCHEDULE: Mod Kits (Field Application) KIT DELIVERY SCHEDULE: Mod Kits

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CLASSIFICATION REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	AIRCRA	AIRCRAFT MODIFICATION	DATE 3 Dec 79	
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AZ3530)	<u>*</u>	MODIFICATION TITLE AND NO, KY-58/ISEC Voice Security, PIP # 1-78-01-0865	1-0865	*
AIRCRAFT AFFECTED: 0V-1				
DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. is to replace the KY-28/TSEC equipment. The KY-58/TSEC is not compatible through the use of an adapter will utilize the existing KY-28/TSEC wiring. Z-AHP is larger than the KY-28/TSEC RCU, and therefore, it requires a MWO/Boxes will be procured with NSA funding and will be distributed by the sar KY-28/TSEC.	Impro	DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. The KY-58 (Vinson) Combat Net Security is to replace the KY-28/TSEC equipment. The KY-58/TSEC is not compatible with the KY-28/TSEC. The KY-58/TSEC through the use of an adapter will utilize the existing KY-28/TSEC wiring. The KY-58/TSEC remote control unit Z-AHP is larger than the KY-28/TSEC RCU, and therefore, it requires a MWO/Kit to reconfigure the console. Black Boxes will be procured with NSA funding and will be distributed by the same procedure currently utilized for the KY-28/TSEC.	bat Net Security he KY-58/TSEC control unit console. Black tilized for the	
DEVELOPMENT STATUS: NSA has devel	NSA has developed the KY-58/TSEC System.	• w a		
MILESTONES FOR AIRFRAME: FY 78	FY 79	FY 80 FY 81 FY 82		
Contract Award for ECP 6Q ECP Approval Contract Award for Kits Kit Installation Start Kit Installation Completed	40 20	2 19 29		GAZ
PROJECT FINANCIAL PLAN: (Amounts in	in thousands of dollars)			
FY 80 25.0	80 FY 81 30.0	1/ Telecommunications Security		
BASIS FOR COST ESTIMATE: (Amounts FY Kits Kits Kit Application (OMA)	in thousands of dol 80 FY 81 Amt Qty Amt 15.0 86 30.0 (112X(176.0)	lars). 2/ Remote Control Unit FY 82 TOTAL Qty Amt 169 55.0 (57) (95.0) (169) (271.0)		
TOTAL	25.0 30.0	55.0		
	1-51	- 1/21/80 BU 11	•	Wed .
DRSTSC Form 2075 Edition of 1 May 76, may be used.	be used. P-1 SHOPP LIST PAGE NO.	10. CLASSIFICATION	EXHIBIT P. 3a	_

Exhibit P-3a Page 2 of 2

KY-58/TSEC Voice Security PIP # 1-78-01-0865

AIRFRAME MOD KIT DELIVERIES:

13

INSTALLATION SCHEDULE:

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EXHIBIT P. 3a

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CLASSIFICATION	FY 81 BUDGET ESTIMATE	IMATE
	AIRCRAFT MODIFICATION DATE JA	JAN.80.
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AZ3530)	MODIFICATION TITLE AND NO. Propeller Reversing Control, PIP # 1-79-01-1018	
AIRCRAFT AFFECTED: 0V-1D		
DESCRIPTION/JUSTIFICATION: Type of Improvement - Flight Safety. The proposed modification will improve f safety by insuring simultaneous reversal of both propellers during the landing roll. The existing propell reversing control circuitry has an established history of wire breakage at the propeller reversing switche mounted on the power level quandrants. Failure of either left or right circuit may cause loss of aircraft	pe of Improvement - Flight Safety. The proposed modification will improve flight s reversal of both propellers during the landing roll. The existing propeller s an established history of wire breakage at the propeller reversing switches ndrants. Failure of either left or right circuit may cause loss of aircraft	flight ler es t
directional control. An OV-1 will be prototyped and flication.	will be prototyped and flight tested to verify suitability of the proposed modifi-	-ijpom
DEVELOPMENT STATUS:		
Initiate Phase I Engineering - 40 79		
MILESTONES: FY 81 FY 82 Contract Award 30 82	FY 83	
Delivery Start Kit Installation Start Kit Installation Complete	1Q 83 4Q 83	
PROJECT FINANCIAL PLAN: (Amounts in thousands of dollars)	rs)	
FY 82 TOTAL PROGRAM Qty Amt Qty Amt 145 285.0		
•		
1-53 -	1/21/80 811 11	•
Abere C. E		

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CLASSIFICATION

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Exhibit P-3a Page 2 of 2

PROPELLER REVERSING CONTROL PIP # 1-79-01-1018

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

TOTAL PROGRAM	Qty Cost	145 285.0	(428.0)	145 285.0
FY 83	Qty Cost		145 (428.0)	
FY 82	Qty Cost	145 285.0		145 285.0
		Kits	Installation (OMA)	TOTAL

METHOD OF IMPLEMENTATION:

Modification kits will be installed at DS Maintenance.

FY 83 1 2 3 4 36 36 37	FY 83 1 2 3 4 36 36 36 37
FY 82 1 2 3 4 36	FY 82
KIT DELIVERY SCHEDULE:	KIT INSTALLATION SCHEDULE:

1-54 - 1/21/80

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P-3	c 1979		Amount (Thousands) (7)	30,900	30,900	,
EXHIBIT P-3	Date: 21 Dec	FY 19 82	Quantity (6)	∞		
	Da		Amount (Thousands) (5)	49,200	49,200	
		FY 19 81	Quantity (4)	80		
ICATIONS			Amount (Thousands) (3)			
AIRCRAFT MODIFICATIONS 1092		FY 19 80	Quantity (2)			
ACTIVITY 2 - AII Reports Control Symbol DD-COMPT(AR) 10	(SSN A02008	MODEL: RC-12D	MODIFICATION (1)	Airplane Recon RC-12D	TOTAL	

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	FY 81	FY 81 BUDGET ESTIMATE
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	AIRCRAFT MODIFICATION	DATE 9 Jan 80
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN 2008)	MODIFICATION TITLE AND NO. Airplane Recon, RC-12D,	PIP #1-80-01-1216
AIRCRAFT AFFECTED: RG-12D		
DESCRIPTION/JUSTIFICATION Guardrail is a cand locating target communications emitters. and ECM resistant wideband data link, a light proved reliability, integration and installation in a pressurized integration and installation in a pressurized a result, tactical field commanders will be partion necessary to make correct decisions or completion of the modification effort, an upg	rdrail is a combined airborne/ground elect ns emitters. This program will upgrade evalure, a lighter weight integrated inertial a pressurized C-12 aircraft. Through these lity and improved reliability and survival ers will be provided with a higher volume decisions on the battlefield, even under ffort, an upgraded Guardrail system will	ronic system capable of intercepting disting Guardrail V systems with a navigation system (IINS) with iminteroperability, in the constronment, the system will gain oility in the threat environment. As of timely quality intelligence inforbigh ECM threat conditions. Upon a available,
DEVELOPMENT STATUS: The basic features to be contractor independent Research & Development	ic features to be incorporated by this effort have already been developed by rch & Development (IR&D) programs or by previous SIGINT R&D system efforts.	developed by
MILESTONES:	FY 81 FY 82 FY 83	
FY 81 Contract Award Input A/C for Mod Start Del A/C to Msn Contr	10 10 30	
FY 82 Contract Award Input A/C For Mod Start Delivery A/C to Msn Contr 1st Sys Avail 1st Sys Oper	10 10 . 10 40 10	
•		
	1-56 - 1/21/80	
DRSTS-C Form 2075 Edition of 1 May 76, may be used.	TEM NO. 1 of 3 BL 13 CLASSIFICATION	EXHIBIT P. 3a

RC-12D AIRPLANE RECON PIP #1-80-01-1216

0171-10-00-14 313	s in thousands of dollars)
	in t
	(Amounts
•	PROJECT FINANCIAL PLAN:

QTY AMI	81	QTY A	AMT	TOTAL	PROGRAM
8 49,227.0	.0	30,9	30,924.0	16	80.151
BASIS FOR COST ESTIMATE:	(Amounts in th	thousands	s of dollars)		
	FY 81 QTY AMT		FY 82 QTY AMT	TOTAL	PROGRAM
APA PRIMARY IPF Mod			·		
Data Link	(1) 4,157.0		(2) 4,815.0	(3)	8972.0
SCARS	(1) 247.0		263.	(3)	510.0
Interoperability	39		1,321	(3)	2560.0
Integration Mod ARF Mod	4		926.	(3)	5669.0
Data Link	(8) 5,741.0		(8) 4,670.0	(16)	10411.0
SCARS		-	,224.	(16)	-2
Integration Mod	1,31	•••) 1,068.	(16)	2381.0
AGE Mod	13	<u> </u>	140.	(3)	271.0
Aircraft Mod	5,16) 4,166.	(16)	9334.0
INS ASN-132	1,8		3,010.	(16)	4891.0
IR Stacks	· (•	113.	(16)	243.0
ASE	(8) 1,443.0		1,1	(16)	2598.0
STE	407		34.	(4)	2,141.0
Float	9		1	(3)	672.0
Non-Recurring (Contr)	15,636.0			1	5,636
Data	4041.0				4041.0
OT Test	0.907				706.0
	1		1,500.0		1500.0
Field Support (Contr)	268.0				268.0
	569.0		1819.0	ł	2388.0
TOTAL APA PRIMARY	49.227.0		30,924.0	•	80,151.0

FY 81 BUDGET ESTIMATE Exhibit P-3a Page 3 of 3

4

RC-12D AIRPLANE RECON PIP #1-80-01-1216

BASIS FOR COST ESTIMATE CONT'D (Amounts in thousands of dollars)

TOTAL PROGRAM	QTY AMT
FY 83	QTY AMT
FY 82	QTY AMT
FY 81	QTY AMT

ITEM DESCRIPTION

METHOD OF IMPLEMENTATION: The GUARDRAIL V system will be modified at contractor facilities.

KIT DELIVERY SCHEDULE: Not applicable.

		FY 81 1 2 3 4	1 4	-1	FY 82 1 2 3 4	7 4	귀	FY 83	3 3	4	FY 84	
	Inductions (Acft)	9	7	က	e		7					
	by Acfr Contractor)				m	4	3	က	-	-	1	
<i>~</i>	completions (Delivery by Man Contractor)									9	9	
~;												

FY 85

1-58_ 1/21/80 BU 13

	V.	<u> </u>															#	
81 BUDGET ESTIMATE	P-3	79	82	Amount (Thousands) (7):	4,803.0						2,110.0	48.0	2,149.0	13,785.0		١		
FY 81' BUDC	EXHIBIT	Date: 3 Dec	FY 19	Quantity (6)	2						27							
		D	1	Amount (Thous ands) (5)	1,451.0	1,216.0	23.0					1 636 0	1,023.0	4,315.0				BU 14
			FY 1981	Quantity (4)		6												1/21/80
	AIRCRAFT MODIFICATIONS		19 80	Amount (Thousands) (3)	7,496.0	1,782.0	208.0	16.0	13.0	1,402.0				11,600.0		•		1-59 - 1
	. 1		FT 10	Quantity (2)	7	10	11	4 0	6	36 4								
	Reports Control Symbol DD-COMP(AR) 1092	APPROPRIATION: APA/2 (SSN AZ2100)	MODEL: RV-1D	MODIFICATION (1)	Quick Look II Conversion	Hot Metal & Plume Suppressor	*XM-130 General Purpose Dispenser	*Vertical Indicator Display Sys (VIDS) *KY-58/TSEC Voice Security	*AN/ARC-164 UHF/AM Radio	*AN/USQ-61() Digital Data Set, Improved *AN/ALQ-147A(V)2 Countermeasures Set	*AN/ALQ-156() Missile Detector System *AN/ALQ-162(V)2 CW Radar Jammer	Propeller Reversing Control	AN/ALQ-133 Airborne Magnetic Tape Recorder	TOTAL	*Consolidated P-3a	**P3a not included. No FY 81/82 programs		

81 BUDGET ESTIMATE				vert the 18, provide counter-			FY	Est Date	14 Mo	10 82 15 80	(1/Mo)	30 84		FY 82 Qty Cost	2 4803.0		EXHIBIT P. 38
FY 81 BUDG	DATE Jan 80			ation will convert the alcs/electronics, The RV-ID will provide ne (electronic-counter-			FY 80	Est Date	14Mo			18 04		FY 81 Qty Cost	1,451.0		N
		AND NO. # 1-75-01-0306					FY 79	Est Date		10 79 15 Mo	10.81	7		FY 80 Qty Cost	6 16,106.0 4 7,496.0	14	CLASSIFICATION
	DIFICATION	MODIFICATION TITLE A		ment - Operational Capability. This modific. Is new propulsion system, landing gear, avio systems, ground support and test equipment. and capability resulting from the new airborts planned for employment at Corps Level.			FY 78	Est Date		4Q 78 15 Mo	other mo.)			FY 79	,	1/21/80 [3]	
	AIRCRAFT MODIFICATION	MODIFI		of Improvement - Operational Capability. Including new propulsion system, land veillance systems, ground support and terriformance and capability resulting from the system is planned for employment at C		•	FY 77	Est Date			(1/mo for 6, then 1 every other		dollars)	FY 78 E Qty Cost	6 20	1-60 - 1/	T PAGENO. 1 of 3
				of Improvement - Operation: Including new propulsi rivellance systems, ground performance and capability The system is planned for		- Aug 74; Complete Nov 74 duction Aug 74	FY 76	Est Date		Oct 75	(1/mo for 6,	o/ par	in thousands of dollars)	FY 77	4 1		P.1 SHOPP LIST
		STIVITY		uration: In and surveil salon perfortem.) The		completed - 1 tr Sep 74; Control		-	me (A/C)	33	aft	sted	(Amounts in	FY 7T	1		Edition of 1 May 76, may be used.
	TROL SYMBOL	PRIATION/BUDGET AC APA/2 (SSN AZ2100)	CTED: 0V-1B	USTIFICATION RV-1D config t, navigation craft and mi	STATUS:	Jevelopment C /OT II - Star cation - Lim		•	d ror Alrifa Erame (A/C)	rd for ALQ-13	ate for Aircr	very Starts n Insl Comple	MCIAL PLAN:		7 21,572.0		
CI ASSIFICATION	REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AZ2100)	AIRCRAFT AFFECTED:	DESCRIPTION/JUSTIFICATION: Type of Improve OV-1B to the RV-1D configuration: Includin communication, navigation and surveillance increased aircraft and mission performance measures surveillance system.) The system	DEVELOPMENT STATUS:	Engineering Development Completed - Aug 74 Testing - DT/OT II - Start Sep 74; Complete Nov Type Classification - Limited Production Aug 74	MILESTONES:		Contract Award for Alfirame(A/C). Leadtime Airframe (A/C)	Contract Award for ALQ-133	Production Rate for Aircraft	ALQ-133 Delivery Starts TOTAL Program Insl Completed	PROJECT FINANCIAL PLAN:	FY 75	1 19.510.0	TOTAL PROCRAM	DRSTS-C Fuin 2075

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FY 81 BUDGET ESTIMATE

QUICK LOOK II PIP # 1-75-01-0306

Exhibit P-3a Page 2 of 3

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

	FY 75	FY 76	FY 7T	FY 77	FY 78	FY 79	FY 80
Conversion	0ty Cost 1 3,078.0	Qty Cost 7 5,210.0	Qty Cost	Qty Cost 4 3,165.0	Oty Cost 6 4,720.0	Oty Cost 6 5,688.0	Qty Cost 4 4,536.0
GFE (Acft)	2,226.0	3,032.0	·	1,927.0	2,852.0	2,479.0	281.0
Avionics		1,687.0	0	1,841.0	2,648.0	1,196.0	
Mission Equip							
(A) ALQ-133	5 7,525.0	5 4,702.0	0	483.0	10 6,511.0	8 4,505.0	0
(B) USQ-61	9	6 261.0	0	26.0	12 307.0	7 86.0	0
(C) USM-393/ALM-							
153/ALM-154	4 2,448.0	0	0	588.0	1 774.0	1 691.0	362.0
(D) MSA-34	0	2 290.0	0	0		0	0
ш	0 81.0	5 425.0	0	1 65.0	4 276.0	3 222.0	
Other Equip & Spt	2,030.0	5,965.0	110.0	3,146.0	1,916.0	1,239.0	2,317.0
TOTAL	1 19,510.0	7 21,572.0	110.00	4 11,241.0	6 20,004.0	6 16,106.0	4 7,496.0
	FY 81	FY 82	TOTAL PROCRAM	¥1			
	Orv Cost	Oty Cost	Orv Cost	- tr			
Conversion	1		ļ 1				
GFE (Acft)	375.0						
Avionics	0	0					
Mission Equip							
(A) ALQ-133		0		• •			
	0	0					
(C) USM-393/ALM-				*;			
153/ALM-154		0					
(D) MSA-34	0	0					
Maint Van	0	0	16 1,00	59.0			
Other Equip & Spt	1,076:0		17,79	99.0			
TOTAL	1,451.0						

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1/ Total quantity indicates aircraft conversions.

1-61 - 1/21/80

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QUICK LOOK II PIP # 1-75-01-0306

Exhibit P-3a Page 3 of 3

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Re FY 75: includes 2 sets for training
Re FY 75: includes 4 sets for training
Re FY 75: includes 2 Ground Stations for training less one (1) ALM-153.
Re FY 78: includes 1 Ground Station and One (1) ALM-153 for training
Re FY 78: includes diagnostic tapes/training/data/general test equipment/ECCM Spt/ STE/target to ceiling. ê

METHOD OF IMPLEMENTATION: Conversion will be accomplished by the contractor.

Not applicable. KIT DELIVERY SCHEDULE:

INSTALLATION SCHEDULE

FY 77 FY 78 FY 79 FY 80 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4	1 2 2 3 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 1 1	FY 84	
FY 7T FY 1 2	1 1 2	FY 83 FY	_
FY 76	Inductions 1 2 Completions	FY 82	, c c -

Completions Inductions

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TV 81 RIDGET ESTIMATE

CLASSIFICATION				FY 81 BUDG	FY 81 BUDGET ESTIMATE	
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092		AIRCRAFT MODIFICATION	IFICATION		DATE 3 Dec 79	
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AZ2100)	l Y	MODIFIC Hot Met	MODIFICATION TITLE AND NO. Hot Metal Plus Plume Suppressor, PIP	essor, PIP	#1-78-01-0314	*
AIRCRAFT AFFECTED: RV-1D DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. The Hot Metal Plus Plume Suppressor is an engine nacelle/exhaust modification which reduces the infrared (IR) signature by using ram air for cooling	ype of Improvemer modification whic	it - Operational C h reduces the Inf	apability. The rared (IR) signa	Hot Metal Plus ture by using a	Plume Suppressor am air for cooling	•
airframe mod kit provisions, including covers for use in unsuppressed configuration; louvered scarfed shroud suppressor assembly (B Kit); and static covers for each engine. The IR suppressor system is required to complement the AN/ALQ-147() IR Jammer to defeat the growth threats, and will become mission essential in operations against growth threats.	ot metal) and exifications covers and static covers mer to defeat the	1) and exhaust gases (plume dilution). The suppressor system consists of ng covers for use in unsuppressed configuration; louvered scarfed shroud tic covers for each engine. The IR suppressor system is required to compledeest the growth threats, and will become mission essential in operations	dilution). The ressed configuration The IR suppress and will become m	suppressor system consists tion; louvered scarfed shrou sor system is required to co mission essential in operati	stem consists of scarfed shroud required to comple- lal in operations	
DEVELOPMENT STATUS: Engineering development contract was awarded Jun 75, ED prototype fabricated Apr 76. Contractor developmental testing and government effectiveness (IR measurements) testing is complete. Government endurance (RAM) testing was completed May 78. A TECOM Independent Evaluation Report was issued Jul 78. The ECP for the airframe provisions was approved Apr 77, and contract mod for incorporating provisions during the conversion program was awarded Feb 78.	ring development of and government completed May 78. was approved Apr 78.	Engineering development contract was awarded Jun 75, ED prototype fabricated Apr 76. I testing and government effectiveness (IR measurements) testing is complete. Government mas completed May 78. A TECOM Independent Evaluation Report was issued Jul 78. I alsions was approved Apr 77, and contract mod for incorporating provisions during the warded Feb 78.	led Jun 75, ED promeasurements) terient Evaluation Rood for incorpora	ototype fabricated sting is complete. eport was issued Ju ting provisions dur	ited Apr 76. Con- ete. Government ed Jul 78. The ECP ed during the con-	
MILE STONES:	FY 78 EST DATE	FY 79 EST DATE	FY 80 EST DATE	FY 81 EST DATE		(h
Pdn Contr Award (Leadtime): Airframe Provisions Mod Kits Suppressor B Kits	Feb 78	Dec 78 (13 mo)	2Q 80 (5 mo) 2Q 80 (9 mo) 2Q 80 (9 mo)	1Q 81 (9 mo)		
		20 80	20 81 10 81	40 81		
Installation Starts: Mod Kits Suppressor B Kits		(Installed on	30 81 a mission-required basis)	red basis)		
•		1-63 - 1/2]	1/21/80 81 14			6 0
DESTAC Form OCAT	TO THE PART OF THE	DAGE NO				ŗ

2075 DRSTSC Form 1 Apr 78

Edition of 1 May 76, may be used. P-1 SHOPP LIST PAGE NO.

CLASSIFICATION

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RV-1D HOT METAL PLUS PLUME SUPPRESSOR PIP # 1-75-01-0314

Exhibit P-3a Page 2 of 2

(Amounts in thousands of dollars) PROJECT FINANCIAL PLAN:

TOTAL PROGRAM	4,059.0
FY 81	0TY COST 1,216.0
FY 80	OTY COST 1,782.0
FY 79	QTY COST 689.0
FY 78	01Y COST 361.0
FY 77	QTY COST 11.0

(Amounts in thousands of dollars) BASIS FOR COST ESTIMATE:

11.0	136.0	411.0	3,053.0	(117.0) 4,059.0
		10	27	1
			1,216.0	$11 \frac{(117.0)}{1,216.0}$
			·6	117
		222.0	,148.0	1,782.0
		4 (10 1	1
			0.689	0.689
			8	·
36.0	136.0	189.0		361.0
		9		,
11.0				11.0
Non-Recurring: Airframe Provisions Mod Kits	Suppressir B Kits	Airframe Provisions	Suppressor B Kits	APPLICALION: Wod Kits (OMA-2207) TOTAL APA
	Provisions 11.0 36.0		36.0 136.0 6 189.0 4 222.0 13	11.0 36.0 136.0 6 189.0 8 689.0 10 412.0 11 412.0 11 412.0 27 3,0

program beginning with the number 13 delivery conversion RV-1D. The balance of the airframe modifications will be accomplished in the field by contract and/or depot contact teams. Installation time for field application of air-frame provisions is estimated at 400 man-hours. The suppressor B Kit is to be provided to the field and installed Installation of 16 airframe provisions will be incorporated during the RV-1D conversion on a mission required basis. Installation time for the B Kit is estimated at 8 man-hours by AVUM level personnel. METHOD OF IMPLEMENTATION:

KIT DELIVERY SCHEDULE: Mod Kits

FY 81 2 3 6 FY 81 2 3 6 5

Mod Kits (Field Application)

INSTALLATION SCHEDULE

1-64 - 1/21/80

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BUDGET ESTIMATE	DATE 3 DEC 79	1-79-01-1019		of control circuitry for of both propellers ablished history of Failure of either left aircraft reportedly al loss. All non-recurritunded by	y normal priority is dependent upon						•		
FY 81	AIRCRAFT MODIFICATION	MODIFICATION TITLE AND NO, PIP # 1-7			Modification Kits will be installed at DS maintenance level as directed by normal priority s considered necessary for a kit application. Implementation of this PIP is dependent upon -79-01-1018.	FY 83	1Q 83 4Q 83		FY 83	(68.0)		- 1/21/80 BU 14	
	AIRCRAFT	Pro		Improvement - Mission Sa (Mohawk) aircraft will iting propeller reversing ersing switches mounted of aircraft directional cor of this type of failure; sign, prototype and test	Kits will be installed an ecessary for a kit applic	FY 82	2Q 82 4Q 82	n thousands of dollars)	FY 82	48.0		1-65-1	
CLASSIFICATION	REPORTS CONTROL SYMBOL · DD-COMP (AR) 1092	APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AZ2100)	AIRCRAFT AFFECTED: RV-1D	DESCRIPTION/JUSTIFICATION: Type of Improvement - Mission Safety. The resulting improve reversing propeller pitch on RV-1D (Mohawk) aircraft will insure simultaneous reversal during the landing roll. The existing propeller reversing control circuitry has an est wire breakage at the propeller reversing switches mounted on the power level quadrants or right circuit may cause loss of aircraft directional control. Since 1970, four OV-1 incurred major damage as a result of this type of failure; one of the Mohawks was a totting effort for the development, design, prototype and test of this modification will be PIP 1-79-01-1018.	DEVELOPMENT STATUS: Modification Kits will be MMO. 100 manhours is considered necessary for performance of PIP 1-79-01-1018.	MILESTONES:	Contract Award Delivery Starts Kits: Installation Start Kits: Installation Completed	PROJECT FINANCIAL PLAN: (Amounts in th	•	Kits Installation (O&MA)	•		

Propeller Reversing Control PIP # 1-79-01-1019

FY 81 BUDGET ESTIMATE Exhibit P-3a Page 2 of 2

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

TOTAL PROGRAM

Qty Cost
27 48.0

(27) (68.0)
27 48.0

METHOD OF IMPLEMENTATION:

Modification kits will be installed at DS Maintenance.

FY	$\frac{1}{7}$
FY 82	1 2 3 4
KIT DELIVERY SCHEDULE:	

KIT INSTALLATION SCHEDULE:

1-66 - 1/21/80 BIT 14

CLASSIFICATION	FY 81 BUDGET ESTIMATE	1
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	DATE 3 Dec 79	(
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN A22100) for ALQ	MODIFICATION TITLE AND NO. In Flight Readout Device for ALQ-133, PIP # 1-81-01-1187	
AIRCRAFT AFFECTED: RV-1D		
DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. In the present Outck Loo configuration, the aircrew has no realtime interface with or feedback from the AN/ALQ-133. The existing C-9538 Control Indicator only allows the aircrew to apply power to the system fon-off), select receiver and monitor a set of system status indicator lights. The proposed in-flight readout device would provid aircrew with an expanded interface with and feedback from the AN/ALQ-133.	nal Capability. In the present Outck Look II or feedback from the AN/ALQ-133. The existing power to the system (on-off), select receiver pod(s) proposed in-flight readout device would provide the the AN/ALQ-133.	
DEVELOPMENT STATUS:		
Initiate Engineering 1Q 81 ECP Approval 2Q 82		
MILESTONES: FY 81 FY 82 FY 8 FY 82 FY 82	83	,
Starts 10 tion Starts 30 tion Complete 30	83 83 83	
PROJECT FINANCIAL PLAN: (Amounts in thousands of dollars)		
FY 81 FY 82 TOTAL PROCRAM Qty Cost Oty Cost Oty Cost. 1,549.0	·	
•		
1-67 - 1/21/80	0	
DRSTS-C Form 2075 Edition of 1 May 76, may be used. P-1 SHOPP LIST PAGE NO. THEM NO.	T 14 CLASSIFICATION - : IBIT P. 38	38

IN FLIGHT READOUT DEVICE FOR ALQ-133 PIP # 1-81-01-1187

Exhibit P-3a Page 2 of 2

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

	FY 81	FY 82	FY 83	TOTAL
	357	757	122	
Non-Recurring	1,393.0	1,030.0		2.423.0
In-Flight Display Units	4 104.0	37 1,017.0		41 1,121.0
Misc Equip	52.0			52.0
Pwr Supply/Mount		37 254.0		37 254.0
Interface Units		37 254.0		37 254.0
Aircraft Kits				
Installation (OMA)				
	1,549.0	2,626.0		4,175.0

airborne systems, 3 intelligence school training A contract field team will modify systems devices, and depot testing system device. METHOD OF IMPLEMENTATION:

FY 83

1-68 - 1/21/80

1,249.0

KIT DELIVERY SCHEDULE:

INSTALLATION SCHEDULE:

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CLASSIFICATION REPORTS CONTROL SYMBOL DD-COMP (AR) 1092		AIRCRAFT	AIRCRAFT MODIFICATION		FX 81 BUDGET ESTIMATE. DATE .3 Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AZ2100)	IITY	MOL	MODIFICATION TITLE AND NO. Recorder for AN/ALQ-133, PI	MODIFICATION TITLE AND NO, Airborne Magnetic Recorder for AN/ALQ-133, PIP # 1-80-01-1186	4
AIRCRAFT AFFECTED: RV-1D					
DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. The purpose of this program is the improvement of the operational and maintenance/diagnostic capabilities of the AN/ALQ-133 Non-Communications Emitter Location and Identification System, Quick Look II, mounted in RV-ID Mohawk aircract. The current tape	ype of Improvement - I and maintenance/dication System, Quick	Operational agnostic ca	l Capability. pabilities of ounted in RV-	The purpose of this program is the the AN/ALQ-133 Non-Communications 1D Mohawk alreract. The current tape	ogram is the unications current tape
recorder is a non-standard, non-supportable item that does not meet operational and supportability requirements. To standardize the tape recorders used in the Quick Look program, this improvement would also replace the RD-392U tape recorder used in the AN/USM-393, AN/ALM-154 and the AN/ALM-153.	on-supportable item ders used in the Qui the AN/USM-393, AN/	that does n ck Look pro ALM-154 and	ot meet opera gram, this im the AN/ALM-1	itional and supportability provement would also rep. 53.	y requirements. lace the
DEVELOPMENT STATUS:					
Initiate Engineering ECP Approval	10 81 20 82				
MILESTONES: Contract Award Leadtime	FY 81 1Q 81 6 Mo	FY 82		FY 83	
Delivery Starts Installation Starts Installation Complete		40 82		1Q 83 3Q 83	
PROJECT FINANCIAL PLAN: (Amou	(Amounts in thousands of dollars)	dollars)			
FY	Υ 82 , Amr Qt	TOTAL			
		1-69 - 1/21/80	21/80		
DRSTS-C Form 2075 Edition al 1 May 76, may 1 Apr 78	may be used. P-1 SHOPP LIST ITEM NO.	T PAGE NO.	R[[14	CLASSIFICATION	

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FY 81 BUDGET ESTIMATE

AIRBORNE MAGNETIC TAPE RECORDER FOR AN/ALQ-133 PIP # 1-80-01-1186

Exhibit P-3a Page 2 of 2

(Amounts in thousands of dollars) BASIS FOR COST ESTIMATE:

	FY 82	FY 83	TOTAL
	Oty Cost	Qty Cost	Qty Cost
n-Recurring	663.0		663.0
sc Equipment	141.0	•	141.0
rframe Kits	26 36.0		26 36.0
gital Tape Recorder	56 1,166.0	•	56 1,166.0
terface Units	52 143.0		52 143.0
stallation (OMA)			
LAL	2,149.0		

airborne systems, 3 ground station complexes, METHOD OF IMPLEMENTATION: A contract field team will modify airborne systems, 3 intelligence school training system devices, and 1 depot testing system device.

FY 83	1 2 3 4
FY 82	1 2 3 4
KIT DELIVERY SCHEDULE:	

INSTALLATION SCHEDULE:

1-70 1/21/80

Non-Misc Airf Digi Inte Inst

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	,			FY	81 BUDGET ESTIMATE	STIMATE
Reports Control Symbol DO-COMP(AR) 1092		AIRCRAFT NODIFICATIONS			EXHIBIT	P-3
APPROPRIATION: APA/2 (SSN AA0150)				ĕ	Date: 3 Dec	79
MODETL: AH-1S	, m	19 s ₀	FF 19 ₈₁	11	Fr 1982	2
HODIFICATION (1)	Quantity (2)	Amount (Thousands)	Quantity (4)	Amount (Thous ands)	Quantity	15€
AH-1 G/S Conversion/Modernization	160	256,480	64	071,601	,	
HM+P Suppressor IR Jammer, ALQ-144	268 160	3,083 3,976	64 64	801 1,790	1 1	
Improved Attitude Heading Reference System		1,970	56	2,049	7.1	2,596
Radar Jammer, ALQ-136	100	10,595	20	5,130	10	3,344
Laser Warning Receiver	1	ı	0	0-	125	5,445
*NOE Communications	0	596	61	1,060	193	2,315
TOTAL		276,400		1,20,600		13,700
"Consolidated P-3a's						
		1-71 -	1/21/80	BI 16		,

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REPORTS CONTROL SYMBOL	doaly	AIRCRAET MODIEICATION	FY 81 BUDGET ESTIMATE	31
UD-COMF (AR) 1092	AINCH.	A I MODIFICATION	DAIE 3 Dec 79)ec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0150)		MODIFICATION TITLE AND NO. AH-1G/S Conversion/Modernization, PIP # 1-77-01-0479). ization, PIP # 1-77-01-	-0479
Aircraft Affected - AH-1G				
Description/Justification: Type of	Type of Improvement - Operational Capability.	onal Capability.		
Target W upled will dufficat irframe s incorp onics Eq rnizatic us Plume ores Mar rne Lase c AH-IG	on System (AH-1S) with changes in the Attack of remaining AH-1G aluctural/power train betion of the Improved (ment (SLAE) radios (p) mprovements including MHP) Suppressor, Inframent/Remote Fuzing, Ulracker, and complete AH-1S conversion was cet, fire control and a Remaining items only	Weapon System (AH-1S) with Fire Control and Stores Management/Remote Fuzing was 1th changes in the Attack Helicopter AAO, additional AH-1S aircraft are required, tion of remaining AH-1G aircraft. This modification includes integration of the structural/power train beef-up, with remanufacture of T53-Lil engines to the T53-poration of the Improved Cockpit/Canopy, Hydraulic Pump, Rod End Bearing, and quipment (SLAE) radios (providing compatibility with the New AH-1S production on improvements including Main Rotor Hub, Particle Separator, Second Generator/on improvements including Main Rotor Hub, Particle Separator, Second Generator/elikemote Fuzing, Universal Turret, Telescopic Sight Unit (TSU) Anti-Ice, it to AH-1S conversion was developed and tested under PIPs 0420 (AH-1Q - ICAPL/and turret, fire control and stores management efforts are being developed to be turret, fire control and stores management efforts are being developed to be	fanagement/Remote Fuzing I AH-1S aircraft are req n includes integration of of T53-Lil engines to t Pump, Rod End Bearing, a h the New AH-1S producti Separator, Second Genera Navigation, APX-100 Tran c Sight Unit (TSU) Anti- PIPB 0420 (AH-1Q - ICA) are being developed to l integration and applica	g was quired, of the the T53- and ion ator/ nsIce, be
Milestones:	FY 77 FY 78	78 FY 79	FY 80 FY 81	
Production leadtime - 17 mo. (basic	other 1	Oct 79	19 FY 80 19 FY 81	

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Aircraft induction starts	Nov 78	E	E	Z
Kit delivery starts	10 FY 80	F	Z	E
Kit installation aircraft delivery starts	10 FY 80	£	E	Ē
Aircraft induction completed	40 FY 79	Z	E	Z
Kit delivery completed	20 FY 80	E	E	E
Kit installation aircraft delivery completed	20 FY 80	20 FY 81	20 FY 82	40 F
1/ Improved Cobra Armament Program $2/$ Improved Cobra Agility and Maneuverability			•	
	1-72 - 1/21/80 811 16	780 BL	. 16	

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Edition of 1 May 74, may be used. P-1 SHOPP LIST PAGE NO. 2075 DRSTS-C Form 1 Apr 78

CLASSIFICATION

EXHIBIT P. 3a

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CLASSIFICATION					FY 81 BUDGE	BUDGET ESTIMATE
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092		AIRCRAFT	AIRCRAFT MODIFICATION	Z	DATE	E 3 Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0150)		MOD AH-	MODIFICATION TAH-16/S Convers	VIION TITLE AND NO. Conversion/Modernization,	PIP #	1-77-01-0479
BASIS FOR COST ESTIMATE: (Amounts in tl	in thousands of	dollars)				
FY 77 QEY	Cost Qty	FY 78	FY 79 Qty Cost	FY 80 Qty Cost	FY 81 Qty Cost	Total Qty Cost
NON-RECURRING: Prod Engr/Tooling/Data/Pubs (Basic) Prod Engr/Tooling/Data/Pubs (GFE) Competitive Source Qual-Subswatems	3,997.0	20,345.0 5,033.0	2,425.0 4,825.0	.0 3,095.0 .0 1,993.0	745.0	
Training Hardware Total Nonrecurring	3,997.0	2,355.0	2,106.0	·	1,786.0	58,794.0
RECURRING: Air Vehicle Airframe Conversion Kit Integration	11	2,039.0 4,651.0	137 22,705.0	.0 160 30,518.0 .0 160 33,757.0	64 13,726.0 64 16,506.0	372 68,988.0 372 82,228.0
STE/PGSE/Trainer Mod T53-L-703 Engine Remanufacture Fuel Controls/Governors Particle Separator	42	2 4,575.0 861.0	1,250.0 195 24,918.0 195 2,623.0 237 498.0	.0 191 28,650.0* .0 147 2,014.0* .0 191 430.0	9,627.0	19,172.0 428 58,143.0 412 5,498.0 428 928.0
Weapons/Armament/Fire Control TOW Missile System Laser Rangefinder TSU Launcher Anti-Ice STE/PGSE/IES	##	1 2,290.0	137 31,859.0 137 5,439.0 148 20.0 5,426.0	.0 160 37,709.0 .0 160 6,283.0 .0 160 36.0	64 20,855.0 64 2,698.0 64 7.0 6,903.0	372 88,813.0 372 14,805.0 372 63.0
*Includes program buy-out.						
		1-73 - 1/2	1/21/80	BU 16		
DRSTS-C Form 2075 Edition of 1 May 76, may be used.	P-1 SHOPP LIST ITEM NO.	T PAGE NO.		CLASSIFICATION	ATION	

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ESTIMATE
BUDGET
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CLASSIFICATION								1707077		
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092		~	RCRAFT	AIRCRAFT MODIFICATION	NO			DATE	in E	Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0150)			MOD	MODIFICATION AH-1G/S Conv	TITLE	ODIFICATION TITLE AND NO. AH-1G/S Conversion/Modernization,	ation,	PIP #	-77-0	1-77-01-0479
FY 77 QEY COSE	et Qty	FY 78 Cost	OEY IN	79 Cost	OEY PY	(80 Cost	AT A	Cost	Qty.	TOTAL
Helmet Sight Subsystem Universal Turret Guns, Feeders Rocket Mgt Subsystem 10KVA Alternator STE/PGSE	#####	163.0 850.0 191.0 350.0 175.0	154 137 177 137 137	2,526.0 10,138.0 3,782.0 3,425.0 2,055.0 1,693.0	180 165 200 165 165	3,663.0 14,850.0 4,627.0 4,501.0 2,701.0 2,305.0	72 59 80 59 59	1,647.0 5,283.0 2,092.0 1,785.0 1,671.0	417 372 468 372 372	7,999.0 31,121.0 10,692.0 10,061.0 6,002.0 5,545.0
Fire Control Computer Heads Up Display Low Airspeed System STE/PGSE	1111	385.0 410.0 310.0	137 137 137	4,110.0 4,384.0 2,740.0 2,847.0	165 165 165	6,600.0 6,930.0 4,455.0 1,487.0	59 59	2,146.0 2,290.0 1,430.0 1,224.0	372 372 372	13,241.0 14,014.0 8,935.0 5,558.Ü
Avionics ALT AAS-32 Float Doppler ASN-128	11	304.0	н	1,971.0		12,060.0 1,675.0 4,197.0	95	7,033.0	305 25 372	21,064.0 1,675.0 10,223.0
Float APX-100 Transponder Float SLAE Pkg (ARC-114/115/164)	20	686.0	н	567.0 1,186.0 242.0 1,962.0	30 30 160	786.0 2,057.0 260.0 1,785.0	79	927.0	372 372 50 372	1,353.0 4,856.0 502.0 4,831.0
Float Cockpit Instrumentation Float	20	1,424.0	. 50 . 50 . 50	265.0 2,323.0 474.0	30 90	335.0 4,179.0 784.0	79	1,861.0	372 372 50	600.0 9,787.0 1,258.0
Static Inverter, MS-17406 STE/PGSE	11	26.0	137	327.0 384.0	160	496.0 1,173.0	99	210.0	372	1,059.0 1,965.0
	-		1-74 -	1/21/80		BL1 16:				

2075 DRSTS-C Form 1 Apr 78

Edition of 1 May 76, may be used. P-1 SHOPP LIST PAGE NO.

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EXHIBIT P. 3a

CLASSIFICATION REPORTS CONTROL SYMBOL	LSYMBOL								¥	18	я дар	BUDGET ESTIMATE	
DD-COMP (AR) 1092	. 1092			AIRCRAFT MODIFICATION	FT MOD	IFICATI	N			_	DATE	3 Dec 79	
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0150)	BUDGET ACTIVITY AA0150)			2	ODIFICAN-1G/S	MODIFICATION TITLE AND NO, AH-1G/S Conversion/Modernization,	TTLE /	AND NO.	ation	PIP #	1-77-(1-77-01-0479	6-14
	<u> </u>	Cost	FY 7	78 Cost	OCY.	79 Cost	OEV 8	80 C Cost	ह्य	1 ~ 1		Total Cost	!
Government Engineering Support TSARCOM/AVRADCOM MIRCOM/ ARRCOM/ARADCOM CERCOM/ERADCOM	eering OM MIRADCOM /LABS			NSP NSP NSP		345.0 445.0 245.0 1,043.0	0000	435.0 1,220.0 720.0 1,503.0	0000	406.0 1,023.0 251.0 419.0	0000	1,186.0 2,688.0 1,216.0 2,965.0	
ASE (Non-add; separate P-3a's) HM+P Suppressor IR Jammer ALQ-144	arate P-3a's) 44		•	050.0		999.0 7,536.0 (8,535.0)		3,083.0 3,976.0 (7,059.0)		801.0 1,790.0 (2,591.0)		4,933.0 13,302.0 (18,235.0)	
TOTAL RECURRING			11 20,	20,075.0	137 17	175,418.0 160	091 (242,248.0		64 106,294.0		372 540,135.0	
TOTAL AH-1G/S MODERNIZATION		3,997.0	47,	47,808.0	Ä	184,774.0		256,480.0	0.	109,770.0	0.0	598,929.0	
METHOD OF IMPLEMENTATION: Complair craft overhaul separate m INSTALLATION/DELIVERY SCHEDULE:	METHOD OF IMPLEMENTATION: Complete modification (concurrent installation of aircraft overhaul separate maintenance and repair (MAR) program establish INSTALLATION/DELIVERY SCHEDULE:	modific	ation (c and repa	oncurren iir (MAR)	t insta progra	: installation of all program established.	n of a blishe	all items) ned.	8) In	in conjunction with	tion w	1th	
		FR 79	5 7	10 20 PT	8	<u>49</u>	2 I	81 30	5	10 FF 20	82 30	40	
Aircraft Induction Aircraft Output		5 12	24	39 38 5 8	45 23	37 45 31 38	5 38 8 45	45	37 37	7 38 45	45	14	
			- 1	-75 - 1/	1/21/80	8	BLI 16	•				•	vis 1
DRSTS-C Form 2075	Edition of 1 May 76, may be used	•	P-1 SHOPP LIST ITEM NO.	PAGE NO.	-			CLAS	CLASSIFICATION	N.			

1 athibit

-	REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	10	AIRCRAFT	AIRCRAFT MODIFICATION	FY 8	FY 81 BUDGET ESTIMATE DATE 3 AUG 79	
, All	APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0150)	ACTIVITY)	MO Ho	ICATION TITLE etal + Plume S	1 1	1-78-01-0408 (L b PIP to	
Đ,			90	0479)			
	AIRCRAFT AFFECTED: AH-1S	S			•		
	DESCRIPTION/JUSTIFICATION: Typwill add an insulated up-turned This will reduce the aircraft's flight.	•	of Improvement - Operational Capability. The Hot Metal Plus Plume Suppresso exhaust pipe and ejector/mixer to draw in air and mix with hot exhaust gases. vulnerability to IR2detection and IR homing missiles especially in low speed	Operational Capability. The sector/wixer to draw in air Ridetection and IR homing m	e Hot Metal Plu : and mix with h issiles especia	The Hot Metal Plus Plume Suppressor ifr and mix with hot exhaust gases. grassiles especially in low speed	
	DEVELOPMENT STATUS: ED DT/	ED Contract Compl DT/OT II - 4Q 79	Complete - 4Q FY 79 Q 79				
	MILESTONES:		FY 79	FY 80	FY 81	Ħ	
part of the	Production Contract Award Production Lead Time Deliveries Start	" O	0ct 78 12 months 1Q FY 80	1Q FY 80 12 months 1Q FY 81	10 F	FY 81 months FY 82	
,	PROJECT FINANCIAL PLAN:	(Amounts in t	in thousands of dollars)				
		FY 78	FY 79	FY 80	FY 81	TOTAL PROGRAM	
		50.0	0.666	2,490.0	801.0	4,340,0	
	Float			593.0		593.0	
	Total	50.0	0.666	3,083.0	801.0	4,933.0	
	2/ Infra Red						
ن هر	ì						•
<i>.</i>			1-76 - 1	1/21/80 8[1	1 16		
	DRSTS-C Form 2075 Edition of 1	Edition of 1 May 76, may be used.	P-1 SHOPP LIST PAGE NO. ITEM NO.	•	CLASSIFICATION		1
						EXHIBIT P. 3a	æ

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FY 81 BUDGET ESTIMATE

Hot Metal + Plume Suppressor 1-78-01-0408

Exhibit P-3a Page 2 of 2

6

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

	87 VT	ry 79	FV 80	FY 81	TOTAL PROGRAM
	OTY COST	QTY COST	OTY COST	QTY COST	QTY COSTS
Suppressors		93 963.0	215 2,423.0	64 801.0	372 4,187.0
Non Recurring Eng	50.0	36.0	0.79		153.0
FLOAT			53 593.0		53 593.0
TOTAL	50.0	0.666	3,083.0	801.0	4,933,0
		,			

METHOD OF IMPLEMENTATION: Provisions to accept the installed HMHP Suppressor will be installed by contractor during AH-1 G to S Mod program PIP 0479. Dollars and schedules are included in the PIP. The suppressor, as designed, is to be installed as one complete system.

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1-77 - 1/21/80

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	CLASSIFICATION					PY 81 BUDGET ESTIMATE
	REPORTS CONTROL SYMBOL DD-COMP (AR) 1082	•	AIF	AIRCRAFT MODIFICATION	IFICATION	DATE 3 AUG 79
4	APPROPRIATION/BUDGET ACTIVITY APA/2	CTIVITY (SSN:	N: AA0150 AH-1S)		AND NO.	Infrared Jammer
A	AIRCRAFI AFFECTED: AH-1S			1-78-01	1-78-01 0856(AH-1S)	
	DESCRIPTION/JUSTIFICATION: Type of Improvement - infrared jammer designed to protect Army afroraft	: Type of Imp to protect Arm	Improvement - Ope Army aircraft fro	Operational Capability. from infrared homing (E	Operational Capability. The $AN/ALQ-144$ is an Omni from infrared homing (E.G. heat seeking missiles).	is an Omni-directional missiles).
	DEVELOPMENT STATUS: DT/OT II DEVA IPR 1st Prod	Complete - Jun 78 Awd - Jun	- Oct 77 1 79			
sin ang	MILESTONES: ECP/MWO - Complete Cont Awd Mod Kits Prod Lead Time	FW 79		FY 80 3Q FY 80 3Q FY 80 6 months	FY 81	
CON)	AN/ALQ-144 Cont Awd Prod Lead Time Del Starta	Jun 79 12 months 3Q FY 80	t hs 30	20 FY 80 12 months 20 FY 81	2Q FY 81 12 months 2Q FY 82	
	PROJECT FINANCIAL PLAN:	(Amounts in thousands of	nousands of dol	dollars)		
		FY 79 COST 7,536.0		FY 80 COST 3,976.0	FY 81 COST 1,790.0	TOTAL PROGRAM COST 13,302.0
À			1-	1-78 - 1/21/80	'80 B [16	
	DRSTS-C Form 2075 Edition of 1 May 76, may 1 Apr 78	to used.	P-1 SHOPP LIST P.	PAGE NO.	CLASSIFICATION	TION

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AN/ALQ-144 Omni-Directional Infrared Jammer 1-78-01-0856(AH-1S)

Exhibit P-3a Page 2 of 2

MASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

QTY COST	8,405.0 289.0 3,320.0	13,302.0
TOTAL	372	09
:		
FY 81	64 1,790.0	1 790.0
F	99	
PY 80 QTY COST	3,436.0 140.0 400.0	3,976.0
QTY	160 14	
TY 79 OST	3,179.0 149.0 2,920.0	1 288.0
E L	148 16	9
	AII-1S AN/ALQ-144 STE	OAT TAL
	AII-18 AN/ALQ-144 STE	FLOAT TOTAL

METHOD OF IMPLEMENTATION: Provisions to accept the AN/ALQ~144 will be installed during AH 1 G to S mod program, PIP 0479. Dollars and schedules are included in the PIP.

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BASIS FOR COST ESTIMATE:

	À	79	E		Ŧ	81	TOTAL 1	ROCRAM
	OTY	COST	EL O		orr.	OTY COST	OTY COST	COST
AN/ALQ-144 Systems . STE Non-Recurring	148	3,179.0 149.0 2,920.0	160 19	160 3,436.0 19 140.0 400.0	99	1,790,0	372 30	8,405.0 289.0 3,320.0
AF Mod Kits Float	9	1,288.0					09	1,289.0
TOTAL		7,536,0		-79,976,0/21/80	/80	1,790.0 cr. 15		13,302.0

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	C. ASSILICATION							Γ
			AIRCRAFT MC	MODIFICATION MODIFICATION TITLE AND NO. Improvemence System PIP#1-80-01-0923	rite And N	O. Improved	Improved Attitude Heading 1-0923	
	1							
	Description/Justification: Type of Impr The Improved Attitude Heading Reference heading input to the AN/ASN 128 Doppler	Type of Improvement - Operational Capability Ig Reference System (AHRS) will provide the modernized AH-1S with a high 128 Doppler for tactical nap-of-the-earth (NOE) battlefield operations.	covement - Operational Capability System (AHRS) will provide the modernized AH-1S with a high for tactical nap-of-the-earth (NOE) battlefield operations.	l Capability rovide the r the-earth (R	/ nodernized / NOE) battle:	AH-1S with Field opera	a hígh accuracy tíons.	اسن باکیوکسیه
	Development Status: Qualificat accomplished by the contractor.	Qualification of prototype units, system tests and initial flight qualification will be contractor.	units, syste	m tests and	initial fl	ight qualif	ication will be	
E.	Milestones: Engineering Contract Award Production Contract Award Kit Delivery Starts First Kit Applied Kit Installation Complete	FY 80 3080	FY 81 2081 1082 1082	•	FY 82 1082 4082 4084			
	Project Financial Plan:	FY 80 1,970.0	FY 81 2,049.0		FY 82 2,596.0			
	Project Financial Plan:	(Amounts in thousands of dollars)	usands of doll	ars)				
	Non-Recurring: Engineering Design Testing Other	FY 80 - 1,008.0 - 962.0	YY 81	AMT AMT 139.0	<u>FY 82</u>	AMT	QTY AMT	
· ·	Recurring: AHRS Kits		56 1,8 49 1	1,805.0 105.0	71 62	2,454.0 142.0		
A			1-80 - 1,	1/21/80	911 16			
•	٠	P-1 SHOPP LIST	PLIST PAGE NO.			•		

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CLASSIFICATION

F-1 SHOPP LIST | PAGE

FY 81

FY 80

FY 82

FY 83

Carry.

QTY

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(151.4)

(54.8)

31

2,596.0

2,049.0

1,970.0

TOTAL

Installation (OMA)

Method of Implementation: Kits will be installed in the field by contractor teams. Installation is estimated at 40 hours per aircraft.

Delivery Schedule:

 $\frac{\text{FY } 82}{5 \ 15 \ 20} \frac{4}{20}$

 $\frac{1}{20} \frac{\frac{2}{20} \frac{3}{11}}{\frac{2}{20} \frac{4}{11}} \frac{4}{4}$

FY 84

Installat fon Schedule:

Kits

Field Installation

 $\frac{1}{20} \frac{\frac{2}{20} \frac{3}{20} \frac{4}{20}}{\frac{4}{20} \frac{4}{20}}$

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- 10,444,45	CLASSIFICATION REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	VII	AIRCRAFT MODIFICATION	FY 81	DATE 3Dec 79	
(APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN: AA0150)	ΙΥ	MODIFICATION TITLE AN/ALQ-136(V)1 Rada:	ITLE AND NO, Radar Jaumer, PIP #:	1-79-01-0976	
~ <u></u>	AIRCRAFT AFFECTED: AH-1S					
	DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. The AN/ALQ-136 (XE-2) Radar Jais designed to provide protection for AH 1S aircraft against radar directed air defense threat weapons. consists of a receiver/transmitter unit, an antenna system, an operator control unit and an installation	Type of Improvement - Operational Capability. ection for AH 1S aircraft against radar directon mitter unit, an antenna system, an operator co	erational Capal against radar system, an open	directed air defense threat weapons. Systiator control unit and an installation kit.	-2) Radar Jammer t weapons. System nstallation kit.	
	DEVELOPMENT STATUS: DT/OT II DEVALOPMENT STATUS:	<pre>1 - Complete 4Q 79 R - 1Q 80</pre>				
	MILESTONES:	FY 79	FY 80	M 81		
	Engr Initialed ECP Approval Mod Kit Contract Award Production Lead Time Mod Kit Delivery Start Kit Installation, Start GE Contract Award	30 80	30 80 6 months 10 81 10 81	1Q 81 4 months 3Q 81 3Q 81 3Q 81		
_ ~	PROJECT FINANCIAL PLAN: (Am	(Amounts in thousands of dollars)	ollars)			
	QTY COST		0TY COST	$\frac{\text{FY 82}}{\text{QTY}} = \frac{\text{COST}}{2.22.0}$	QTY COST	
	765.0	10,595.0	5,130.0	3,344.0	0.016,0	
	QTY FY 84	TOTAL PROGRAM				
	700.0	27,450.0	0			
		1-82	2 -1/21/80	8LI 16		
	DRSTS-C Form 2075 Edition of 1 May 76, may be used. 1 Apr 78	P-1 SHOPP LIST ITEM NO.	PAGENO.	CLASSIFICATION	EXHIBIT P. 3a	~

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AN/ALQ-136(V)1 Radar Jammer 1-79-01-0976

Exhibit P-3a Page 2 of 3 (

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in thousands	
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(Amounts	
BASIS FOR COST ESTIMATE:	
COST	
FOR	
BASIS	

FY 82 QTY COST	194.0 10 1,154.0 156 866.0 (240) (442.0) 15 1,130.0				16
QTY COST	420.0 50 3,575.0 671.0 164 464.0 (172) (299.0) 5,130.0	QTY COST	(152) (330.0)		- 1/21/80 811
QTY COST	1,705.0 100 6,776.0 1,680.0 162 434.0	OTY COST	28(19)		000000000000000000000000000000000000000
OTY OST	765.0 (OMA) 8	FY 83 QTY COST	811.0 50 3,972.0 745.0 189 593.0 (200) (389.0) (0mA) 8 10 795.0 6,916.0	TOTAL PROGRAM QTY COST	3,130,0 210 15,477.0 3,096,0 959 3,822.0 (959) OMA (1,860.0) 8 25 1,925.0
	Non-Recurring AN/ALQ-136 Systems STE ECP MWO/A Kits A Kit Installations Float AN/ALQ-136 Syr		Non-Recurring AN/ALQ-136 Systems STE ECP/MWO A Kits A Kit Installations FLOAT AN/ALQ-136 Sy		Non-Recurring AN/ALQ-136 Systems STE ECP/HWO A Kits A Kit Installations Float AN/ALQ-136 Sy

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FY 81 BUDGET ESTIMATE

AN/AIQ-136(V)l Radar Jammer 1-79-01-0976

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Exhibit P-3a Page 3 of 3

teams.
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: Modifications
HETHOD OF IMPLEMENTATION:
0.P
METHOD

	1 2 3 4	60 48	$\frac{1}{2} \frac{2}{3} \frac{4}{4}$ 50 50 52
	1 2 3 4	39 60 60 60	1 2 3 4 45 50 50 50
actor teams.	PY 83	56 50 50 50	1 2 3 4 50 50 50 50
depot and contr	1 2 3 4	60 56 50 50	1 2 3 4 60 60 60 60
be applied by	IV 81	40 50 60 60	1 2 3 4 30 25 58 59
Modifications will	1 2 3 4		1 2 3 4
METHOD OF IMPLEMENTATION: Modifications will be applied by depot and contractor teams.	A Kit Delivery Schedule:		A Kit Installation Schedule:

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EXHIBIT P. 3a

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CLASSIFICATION	;				FY	81 BUDGET ESTIMATE
REPORTS CONTROL SYMBOL' DD-COMP (AR) 1092	BOL:	AIRCF	AIRCRAFT MODIFICATION	ATION		DATE 3 Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN: AA0150)	DGET ACTIVITY AA0150)		MODIFICATION TITLE AN/AVR-2, Laser War	MODIFICATION TITLE AND NAA/AVR-2, Laser Warning R	AND NO. ning Receiver, PIP# 1-80-01-0984	1-80-01-0984
AIRCRAFT AFFECTED: AH-	AH-1S	·				
DESCRIPTION/JUSTIFICATION: is designed to functionally directed at aircraft and to	th the	Type of Improvement - Operational Capability. The Laser Warning Receiver Sintegrate with the AN/APR-39 Radar Warning Receiver to detect laser threat provide audio and visual warning.	tional Capabi Radar Warni ming.		The Laser Warning Receiver System eiver to detect laser threat energ	eiver System threat energy
DEVELOPMENT STATUS: ED Contract Award- 10 DT/OT II - 30 DEVA IPR - 20	1Q FY 80 3Q FY 81 2Q FY 82					
MILESTONES: Contract Award ECP		FY 81 10 81	FY 82	FY 83		
ECP Approval Cont Awd - A Kits			20 82 20 82			
Kit Del Start Kit Installation Start		•	9 months	10 83 10 83		
PROJECT FINANCIAL PLAN		(Amounts in thousands of dollars)	rs)			
	QTY COST	FT 82 QTY COST	ATY OTY	83 COST	TOTAL PROGRAM	М
	-0-	5,445.0		7,541.0	12,986.0	
		1-85 -	- 1/21/80	91 118		

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Edition of 1 May 76, may be used. P-1 SHOPP LIST PAGE NO.

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AN/AVR-2, Laser Warning Receiver 1-80-01-0984

Exhibit P-3a Page 2 of 3

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

FY 83	QTY COST	409.4 150 4,840.6 154.0 375 1,737.0 (354) (607.6) 7,541.0	TOTAL, PROGRAM	1,727.4 275 5,370.1 867.6 550 4,620.9 (550) (974,4) 12,986.0
FY 82	TTO TTO	1,318.0 125 529.5 713.6 175 2 883.9 5,445.0	FY 84 QTY COST	(200) (366.8)
FY 81	OTY COST	-0-		
	5	ECP/MWO Non-Recurring AN/AVR-2 Systems STE Airframe Mod Kits Installation (OMA)		ECP/MO Non-Recurring AN/AVR-2 Systems STE Alframe Mod Kits Installation (OMA)

METHOD OF IMPLEMENTATION: Airframe modification kits will be installed in the field by depot or commercial contract teams. Installation is estimated at 40 hours per aircraft.

FY 81 BUDGET ESTIMATE

Exhibit P-3a Page 3 of 3

AN/AVR-2, Laser Warning Receiver 1-80-01-0984

DELIVERY SCHEDULE:

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INSTALLATION SCHEDULE:

Kits

Field Installation

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XHIBIT P-3	6,	19 82	Amount (Thous ands) (7)	26,000.0	14,887.0	8,496.0	212,154.0	
EXHIBIT	Date: 3 Dec 79	FT 19	Quantity (6)	26	65	87		
	D.	81	Amount (Thousends) (5)	25,620.0	12,038.0	3,472.0 9,467.0 146,367.0	196,964.0	BET 17
		FY 19 81	Quantity (4)	11	99	130	`	1/21/80
AIRCRAFT MODIFICATIONS		19 80	Amount (Thous ands) (3)	21,945.0	10,251.0	(1,702.0%** (1,998.0%**	59,628.0	1-87
1 . 1		I M	Quantity (2)	27	77	95 110		
ACTIVITY 2 - Reports Control Symbol DD-COMP(AR) 1092	APPROPRIATION: APA/2 (SSN AA0250)	MODEL: CH-47	MODIFICATION (1)	CH-47C Fiberglass Rotor Blades	Conversion of T55-L-11D to T55-L-/12 Engine	**T55-L-11 ASA Wide Chord Blade * XM-130 General Purpose Dispenser * AN/ALQ-156 Missile Detector System	TOTAL CH-47	* Consolidated P3a ** P3a not included. No 81/82 program. *** FY 80 below threshold reprograming

CLASSIFICATION REPORTS CONTROL SYMBOL					FY 81 BUI	FY 81 BUDGET ESTIMATE
	AIRCRAFT	AIRCRAFT MODIFICATION	TION		DATE	3 Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSV AA0250)	MOD CH-	MODIFICATION TITLE AND NO. CH-47C Fiberglass Rotor Bl	TITLE AN	E AND NO. Rotor Blades,	PIP # 1-77-	1-77-01-0816
AİRCRAFT AFFECTED: CH-47C						
DESCRIPTION/JUSTIFICATION: Type of Improvement - Reliability and of the CH-47C fleet with fiberglass rotor blades, thereby reducing price metal blades with their associated high life cycle costs. I and reduce vulnerability and maintenance man-hours for the CH-47C.	e of Improvement - Reliability and Maintainability. lass rotor blades, thereby reducing the requirement: ssociated high life cycle costs, It will also incre- intenance man-hours for the CH-47C.	y and Mai educing th sts. It w	ntainabil e require ill also	ity. This ments for p increase sa	Reliability and Maintainability. This PIP allows for equipy thereby reducing the requirements for procurement of higher cycle costs. It will also increase safety, survivability for the CH-47C.	for equipment of higher vability
DEVELOPMENT STATUS:						
Design Completion Date Feb 76 Prototype Completion Date Feb 78 Testing Complete Mar 79	·					
MILESTONES:	FY 77 FY 78 FY	FY 79	FY 80	FY 81	FY 82	FY 83
Engineering Initiated Flight Qualification Complete Contract Award for Formal ECP Formal ECP Approval Long Lead Time Items Production Contract Award Delivery Starts Installation Completed	Sep 77 Mar 79 Ju 40	Jun 79 4Q FY 79 Jun 79	1Q FY 80 1Q FY 80 1Q FY 82 3Q FY 82	1Q FY 81 1Q FY 81 2Q FY 82 3Q FY 83	1Q FY 82 1Q FY 82 2Q FY 83 4Q FY 84	1Q FY 83 3Q FY 84 1Q FY 85
PROJECT FINANCIAL PLAN: (Amounts in	(Amounts in thousands of dollars)					
PY 77 FY 78 Qty Cost	Gey Cost Qty	80 Cost	FY 8	81 Cost	FY 82 Qty C	Cost
4,243.0 900.0	9,600.0 27 2:	21,945.0	77 25	25,620.0	92 26,000.0	0:
	1-88 1/21/80	11/80 BL	17			
DRSAV-C Form 2075 1 May 76	P-1 SHOPP LIST PAGE NO. BI			CLASSIFICATION	NO	EXHIBIT P-3A

E CONTRACT

FY 81 BUDGET ESTIMATE

CH-47C FIBERGLASS ROTOR BLADES PIP # 1-77-01-0816

Exhibit P-3A Page 2 of 4

(Amounts in thousands of dollars) PROJECT FINANCIAL PLAN (CONT'D):

210 92,941.0 Total GEA Cost 4,633.0 FY 83 S

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

	FY 77	FY 78	FY 79	FY 80
•	Qty Cost	Qty Cost	Qty Cost	Qty Cost
Long Lead Time Items			860.0	2,240.0
Shipsets of Blades 1/ MWO Kits	0.4.0			(57) 1,472.0
Non-recurring			4,172.0	7,571.0
GSE			324.0	1,175.0
Other	3,429.0	0.006	4,244.0	2,243.0
(Vra) Recurring				
Non-recurring Installation				(159.0)
TOTAL	4,243.0	900.0	0.000,6	21,945.0

* Prototype Blades

1/ Shipset = 6 blades

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	CH-47C FIBERGLASS ROTOR BLADES PIP # 1-77-01-0816	ASS ROT	OR BLADES 816			щщ	Exhibit P-3A Page 3 of 4
BASIS FOR COST ESTIMATE (CONT'D):	(Amounts in thousands of dollars)	sands	of dollars)				
	FY 81	<u>F</u>	$FY 82^{\frac{2}{2}}$	PY Ote	FY $83^{\frac{2}{2}}$		FY 84
		32	1600	4		3	1800
Long Lead Time Items Shipsets of Blades MWO Kits	3,138.0 77 19,763.0 (60) 1,591.0	92 (60)	479.0 23,613.0 1,700.0	14 (33)	3,641.0 992.0		
Tooling GSE							
Other	1,128.0		208.0				
Recurring			(2,224.0)		(3,655.0)		(1,376.0)
non-recutting Installation		(55)	(735.0)	(06)	(1,271.0)	(28)	(864.0)
TOTAL	77 25,620.0	92	26,000.0	14	4,633.0		
	FY 85	Ä	Total				
	Qty Cost	Qty	Cost				
Long Lead Time Items Shipsets of Blades MWO Kits		210 (210)	6,717.0 55,075.0 5,755.0				
Non-recurring Tooling			11,743.0				
GSE Other ·			1,499.0				
OMA) Recurring	(30.0)		(7,285.0)				
Non-recuring Installation TOTAL	(7) (110.0) (210) 210	(210)	(2,980.0) 92,941.0				
2/ See page 4 of 4				1-90	1-90 - 1/21/80	86	17

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FY 81 BUDGET ESTIMATE

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CH-47C FIBERGLASS ROTOR BLADES PIP # 1-77-01-0816

Exhibit P-3A Page 4 of 4

METHOD OF IMPLEMENTATION: Application will be accomplished at aircraft user locations by depot teams. Estimated installation time per kit is 400 hours.

	TOTAL	210	210 210
	FY 85		
	-1		7
	41	7	15
	33	16	15
	FY 84	16	13 13
	H	16	15
	1 0	32	22
m.	8 (3	16	23
nour	FY 83	32	22
400 nours.	, - -1	16	23
87	41	16	15 15
time per kit 18	3 2	16	15
per	FY 82	16 16	15
time	႕	16	91
Estimated installation		Kit Delivery Schedule	Installation Schedule Induction Completion

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AD-A082 805 DEPUTY CHIEF OF STAFF FOR RESEARCH DEVELOPMENT AND AC--ETC F/6 15/5 DEPARTMENT OF THE ARMY JUSTIFICATION OF ESTIMATES FOR FISCAL YE--ETC(U) JAN 80 UNCLASSIFIED NL 2 × 2° %d≥05 END END DATE DATE 5-80 5-80 DTIC DTIC

CLASSIFICATION	FY	FY 81 BUDGET ESTI
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	AIRCRAFT MODIFICATION	DATE 3 Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0250)	MODIFICATION TITLE AND NO. CONV. of T55-L-11D to T55-L-712, PIP # 1-78-01-0700	1-78-01-0700

DGET ESTIMATE

3 Dec 79

CH-47C AIRCRAFT AFFECTED:

This PIP provides hardware for a long life (RAM-D) engine. It also provides hardware for emergency power conditions. This hardware will make up an engine identified as the T55-L-712. Improved RAM-D hardware is necessary in order to increase the disabled. A T55-L-11D engine with RAM-D and emergency power hardware installed will be reidentified as the Mean-Time-Between-Depot for all causes (MTBDA) for the T55-L-11D engine to over 1000 hrs. Emergency power hardware is necessary in order to provide reduced aircraft vulnerability in the event of an engine being DESCRIPTION/JUSTIFICATION: Type of Improvement - Reliability and Maintainability. T55-L-712 engine. DEVELOPMENT STATUS: Program initiated 1 Mar 76. Four (4) test engines have been converted to the T55-L-712 configuration and testing has begun to determine low-cycle fatigue, extended service life and performance. testing is being accomplished under the Component Improvement Program.

MILESTONES

															¥.	i i)
FY 84	ESTDATE				20 84							20 87					
FY 83	EST DATE				£ 0 83												
FY 82	EST DATE EST DATE				20 82												
FY 81	SST DATE				20 81												
FY 80	ST DATE				20 80												
FY 79	ST DATE			Aug 79						20 81	40 81		40 79			20 80	
FY 78	EST DATE																
FY 77	EST DATE																
FY 76	ACT DATE		Aug 76														-
	ï	Contract Award for:	Tooling	Long Lead Time Castings	Engine Production Kits	Lead Time - 21 Months	Production Rate - Monthly	1, 2, 4, 5 thereafter	8 per Month	Eng Kit Delivery Starts	Eng Kit Installation Starts	Eng Kit Installation Complete	Contract Award for Airframe Kits	Lead Time 10 Months	Production Rate - 25 per Month	A/F Kit Delivery Starts	

2075 DRSTS-C Form 1 Apr 78

P-1 SHOPP LIST ITEM NO. Edition of 1 May 76, may be used.

- 1/21/80 1-92

CLASSIFICATION

EXHIBIT P. 3a

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CH-47 Conversion of T55-L-11D to T55-L-712 PIP # 1-78-01-0700

Exhibit P-3a Page 2 of 3

FY 81 BUDGET ESTIMATE

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ACT DATE EST DATE FY 84 FY 83 FY 82 FY 81 FY 80 FY 79 FY 78 FY 77 FY 76

A/F Kit Delivery Starts A/F Kit Installation Starts

PROJECT FINANCIAL PLAN:

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

QTY COST TOTAL QTY COST FY 84 QTY COST FY 83 QTY COST FY 82 COST FY 81 QTY QTY COST FY 80 QTY COST FY 79 QTY COST FY 76

44 7,000.0 41 8,000.0 105 693.0 112 767.0

Kits Engine

0 112 767.0

1,484.0

(tooling)1,210.0

Airframe Nonrecur

OMA Instl (OPA)

TOTAL

(217) (483.1)

2,694.0

299 65,154.0 217 1,460.0

56 12,038.0 65 14,887.0 56 13,617.0 37 9,612.0

1,210.0 149 7,693.0 153 10,251.0 56 12,038.0 65 14,887.0 56 13,617.0 37 9,612.0 516 69,308.0

(217)(483.1)

METHOD OF IMPLEMENTATION: Implementation of Airframe Kits by contractor and depot. Engine conversion accomplished by depot during overhaul.

24 24 24

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Engine Kit Delivery Schedule Installation Schedule Induction/Completion

1-93 - 1/21/80 BU 17

CH-47 Conversion of T55-L-11D to T55-L-712 PIP # 1-78-01-0700

FY 81 BUDGET ESTIMATE
Exhibit P-3a
Page 3 of 3

FY 83 41 H 41

Delivery Schedule Installation Schedule Induction/Completion Airframe Kit

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1-94 - 1/21/80

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			MODIFICATION TITLE			DATE	3 Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0250)		MODIF CH-47	CH-47D Modernization,	TLE AND NO.	# 1-80-01-0815	-0815	1
AIRCRAFT AFFECTED: CH-47D							
DESCRIPTION/JUSTIFICATION: Type of Improvement - Improved Operational Capabilial advances in design technology since introduction of CH-47s into Army inventory. Will result in improved reliability, maintainability and reduced vulnerability, expectancy of the CH-47D modernized aircraft, the year designator of each current to year of acceptance. The CH-47 (Chinook) medium lift helicopter was developed CH-47s being procured in 1962. The Chinook provided invaluable battlefield mobivehicles, artillery and engineer equipment, personnel and logistical support equatione in service to meet the Army medium lift requirement during the 1980s. The continue in service to meet the Army medium lift requirement during the medium meet the Required Operational Capability (ROC) of 15,000 lb. payload for medium	ince introduction of CH-47s into Army inventory. Integration of these change. Ity, maintainability and reduced vulnerability. Based upon the 20 year life ized aircraft, the year designator of each current serial number will be chan. (Chinook) medium lift helicopter was developed in the late 50g with the f. The Chinook provided invaluable battlefield mobility in Vietnam for tactical equipment, personnel and logistical support equipment. The Chinook will Army medium lift requirement during the 1980s. The CH-47A and B models fail ipability (ROC) of 15,000 lb. payload for medium lift helicopters.	Improved Operational Capability. If CH-47s into Army inventory. Inty and reduced vulnerability. By year designator of each current at lift helicopter was developed intel invaluable battlefield mobilionel and logistical support equipment during the 1980s. The 15,000 lb. payload for medium lii	ational Ca Army inve d vulnerab or of each ter was de battleffe tical supp ring the I		uent - Improved Operational Capability. Provides for incorporation of CH-47s into Army inventory. Integration of these changes inability and reduced vulnerability. Based upon the 20 year life, the year designator of each current serial number will be changed medium lift helicopter was developed in the late 50s with the first provided invaluable battlefield mobility in Vietnam for tactical personnel and logistical support equipment. The Chinook will lift requirement during the 1980s. The CH-47A and B models fail to CC) of 15,000 lb. payload for medium lift helicopters.	Provides for incorporation of egration of these changes sed upon the 20 year life rial number will be changed the late 50s with the first in Vietnam for tactical ent. The Chinook will CH-47A and B models fail to helicopters.	Incorporation onese changes) year life [1] be changed with the first or tactical sok will sodels fail to
DEVELOPMENT STATUS: (RDTE Funded)							
Modernization Development Contract lst Flight Preliminary Airworthiness Evaluation (PAE) DT II/OT II Start DT II/OT II Complete ASARC III DSARC III	Jun May 7 PAE) 10 FY 10 FY 30 FY 40 FY	76 79 780 780 780 780		·			
MILESTONES:	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86
Long Lead Time Items Production Contract Award Induction Starts Delivery Complete	1Q FY 80	1Q FY 81 1Q FY 81 1Q FY 81 3Q FY 83	10 FY 82 10 FY 82 10 FY 82 20 FY 84	1Q FY 63 1Q FY 83 1Q FY 83 1Q FY 85	1Q FY 84 1Q FY 84 1Q FY 84 1Q FY 86	10 FY 85 10 FY 85 10 FY 85 10 FY 87	10 fy 86 10 fy 86 10 fy 86 10 fy 88
		FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
Long Lead Time Items Production Contract Award	1-	10 FY 87 10 FY 87 -95 - 1/21	87 1Q FY 88 87 1Q FY 88 /21/80	1Q FY 89 1Q FY 89	1Q FY 90 1Q FY 90	10 FY 91 10 FY 91	1Q FY 92
DRSAV.C Form 2075	P-1 SHOPP LIST	PAGENO. BL	17				

FY 81 BUDGET ESTIMATE

CH-47D MODERNIZATION PIP # 1-80-01-0815

Exhibit P-3a Page 2 of 4

MILESTONES (CONT'D):

FY 89 FY 88 FY 87

FY 90

FY 92 FY 91

> Delivery Complete Induction Starts

10 FY 92 40 FY 93 1Q FY 91 1Q FY 93 1Q FY 90 1Q FY 92 1Q FY 89 1Q FY 91 1Q FY 88 1Q FY 90 1Q FY 87 1Q FY 89

PROJECT FINANCIAL PLAN: (Amounts in thousands of dollars)

FY 85 Qty Cost	36 203,100.0	FY 91 Qty Cost	36 141,645.0	
FY 84 Qty Cost	36 227,900.0	FY 90 Qty Cost	36 145,543.0	
FY 83 Qty Cost	24 199,300.0	FY 89 Qty Cost	36 133,704.0	
FY 82 Qty Cost	19 162,771.0	FY 88 Qty Cost	36 130,326.0	
FY 81 Qty Cost	9 146,367.0	FY 87 Qty Cost	36 141,546.0	10401
FY 80 Qty Cost	27,432.0	FY 86 QEY COSE QEY	36 172,621.0	EV 03

78,666.0 361 1,910,921.0 21

Qty

Cost

SE

(Amounts in thousands of dollars) BASIS FOR COST ESTIMATE:

	FY 80	80	FY 81	FY 82	FY 83	FY 84	
	Oty	Cost	Qty Cost	Oty Cost	Qty Cost	Qty Cost	
Long Lead Time Items		27,432.0	19,550.0	26,624.0	48,313.0		
Recurring			63,217.0	108,843.0	124,416,0		
GFM			2,760.0	6,174.0	8,262.0		
Non-Recurring			60,840.0	21,130.0	18,309.0	5,965.0	
OMA (Transportation)				(3.4)	(28.6)		
TOTAL		27,432.0	27,432.0 9 146,367.0	19 162,771.0	24 199,300.0	36	
			1-96	1-96 - 1/21/80			

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FY 81 BUDGET ESTIMATE

Exhibit P-3a Page 3 of 4

CH-47D MODERNIZATION
PIP # 1-80-01-0815
AMOUNTS FOR COST ESTIMATE (CONT'D): (Amounts in thousands of dollars)

	Ē	FY 85	£	FY 86	124	FY 87	E	FY 88	FY 89
	OEV	Cost	Qt.	Cost	SEX.	Cost	Ğ	Cost	Oty
Long Lead Time Items Recurring GFM		46,092.0 143,261.0 13,747.0		29,538.0 128,642.0 14,441.0		11,392.0 113,890.0 16,264.0		11,811.0 100,274.0 18,241.0	12,276.0 102,182.0 19,246.0
Non-Recurring OMA (Transportation) TOTAL	36	(71.7)	36	(75.7)	36	(79.9)	36	(84.4)	(89.1)
	P	FY 90 Cost	P	FY 91 Cost	Qty F	FY 92 Cost	P Oty	FY 93 Cost	Total Qty Cost
Long Lead Time Items Recurring GFM		12,781.0 105,248.0 20,304.0		7,811.0 108,687.0 21,421.0		65 7 485.0 13,181.0			299,181.0 1,327,474.0 167,086.0 117,180.0
Non-Recurring OMA (Transportation) TOTAL	36	7,210.0 (94.1)	36	3,728.0 (99.4) 141,645.0 21	27	(104.9)		(92.3)	361 1

METHOD OF IMPLEMENTATION: CH-47A, B and C model strcraft will be inducted from the field to the Contractor's site for modernization.

> Inductions Deliveries

1-97 - 1/21/80 **BLI**

FY 81 BUDGET ESTIMATE

CH-47D MODERNIZATION PIP # 1-80-01-0815

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Exhibit P-3a Page 4 of 4

METHOD OF IMPLEMENTATION (CONT'D):

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Y	ACTIVITY 2 - AIRCRAFT	AIRCRAFT MODIFICATIONS			EXHIBIT	FY 81 BUDGET ESTIMATE KHIBIT P-3
Reports Control Symbol DD-COMP(AR)	1092					
APPROPRIATION: APA/2 (SSN AA0300)	(Ğ.	Date: 3 AUG 79	6
MODEL: CH-54	¥	1980	FY 1981	11	FY 1982	. 21
MODIFICATION (1)	Quantity (2)	Amount (Thousands)	Quantity (4)	Amount (Thous ands) (5)	Quantity (6)	Anount (Thousands)
Improved Anti-Collision Lights	36	139.0	36	155.0		0
TOTAL		139.0		155.0		0
	·			-		
	 					
						
	1-99 -	1/21/80	BL 18		!	

CLASSIFICATION					FY 81	81 BUDGET ESTIMATE
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092		AIRCRAFT MODIFICATION	IODIFICATI	NO	7G	DATE 3 AUG 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0300)		MODI	MODIFICATION TITLE AND Anti-Collision Lights,	FITLE AND NO.	1-74-01-0203	3
AIRCRAFT AFFECTED: CH-54A/B						
DESCRIPTION/JUSTIFICATION: Type of Improvement - Safety. The existing CH-54 rotating beacon will be replaced with a longer life and high visibility strobe light. The proposed improvement will consist of a high intensity white strobe light for daylight operations (safety) and a lower intensity red strobe light for night operations. The strobe light proposed has a higher Mean Time Between Failure (MIBF) than the present light.	Type of Improvement - Safety. The existing CH-54 rotating beacon wisibility strobe light. The proposed improvement will consist of ght operations (safety) and a lower intensity red strobe light for a higher Mean Time Between Failure (MTBF) than the present light.	afety. The The proj and a lowe	existing osed improstructure (MTBF)	The existing CH-54 rotating beacon will be replaced proposed improvement will consist of a high intensity red strobe light for night operation filure (MTBF) than the present light.	beacon will nsist of a hight for night.	be replaced igh intensity ht operations.
DEVELOPMENT STATUS:						
Prototype Completion Date: Jan 79 Testing Completion Date: Jun 79					-	
MILESTONES:	FY 78 EST DATE	FY 79 EST DATE	79 ITE	FY 80 EST DATE	FY 81 EST DATE	
Contract Award for ECP ECP Approval Contract Award for Kits GSE/SSE, Training Aids/Devices, etc. Leadtime of Kits - 4 Mos	Nov 78	Ò 7	40, 79	10 80	19 81	
Production Rate of Kits - 12/Mo Kit Delivery Starts Kit Installation Completed				30 80	20 81 10 82	
•						
	1-10	1-100 - 1/21/80	80 BU	18		•
DRSTS-C Form 2075 Edition of 1 May 76, may be	may be used. P.1 SHOPP LIST ITEM NO.	PAGE NO.		CLASSIF	CLASSIFICATION	

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EXHIBIT P. 3a

Exhibit P-3a Page 2 of 2

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CH-54 IMPROVED ANTI-COLLISION LIGHTS PIP # 1-74-01-0203

PROJECT FINANCIAL PLAN: (Amounts in thousands of dollars)

72 294.0 TOTAL QTY COST 36 155.0 FY 81 QTY COST 36 139.0 FY 80 QTY COST

BASIS FOR COST ESTIMATES: (Amounts in thousands of dollars)

Kits	FY 79 QTY COST	FY 80 QTY COST 36 139.0	FY 81 QTY COST 36 155.0	FY 82 QTY COST	TOTAL QTY COST 72 294.0
GFE Non-Recur (OMA)	(151.0)	(11.0)			
Instl					
(OMA)		(12) (10.0)	(48) (43.0)	(12) (12.0)	
TOTAL		36 139.0	36 155.0		72 294.0

METHOD OF IMPLEMENTATION: Depot Teams will install field level by MWO

KIT DELIVERY SCHEDULE:

INSTALLATION SCHEDULE:

1-101 - 1/21/80. BLJ 18

	<u></u>)						W. Mills	J				a	e de la composition della comp	
P-3	6,	12	Amount (Thousands) (7)	391.0	210.0	116.0		717.0			 ·		`	
EXHIBIT	Date: 21 Aug 79	FY 1982	Quantity (6)	18	18 .	99								
	ŭ	81	Amount (Thous ands) (5)	617.0	331.0			948.0						
ACTIVITY 2 - AIRCRAFT MODIFICATIONS Symbol DD-COMP(AR) 1092		FY 19 81	Quantity (4)	30	30									EBU 19
ODIFICATIONS		1980	Amount (Thousands) (3)											1/21/80
DD-COPP (AR) 1092		T M	Quantity (2)											1-102
	APPROPRIATION: APA/2 (SSN AA0270)	HODEL: C-12	MODIFICATION (1)	PT 6A-38 TO -41 Engine Conversion	Auto Feather/Auto Synchronization	Recognition Light and Electrical System	TOTAL C-12					· -		

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CLASSIFICATION	FY 81 BUDGET ESTIN	ESTIMATE
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	AIRCRAFT MODIFICATION DATE 21 AUG	62 :
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0270)	MODIFICATION TITLE AND NO. PT 6A-38 to -41 Engine Conversion PIP #1-79-01-0602	02
AIRCRAFT AFFECTED: C-12A	•	
DESCRIPTION/JUSTIFICATION: Type of Improvented to the PT6A-41 configuration at between overhaul) and hot-end inspection is	Type of Improvement - Reduced cost of operation. The PT6A-38 engines will be nfiguration at the time of overhaul to take advantage of the increased TBO(time advantation intervals of the PT6A-41 engine.	
DEVELOPMENTAL STATUS: The PT6A-41 eng 78 production aircraft as well as all details and plans for engine conversion	DEVELOPMENTAL STATUS: The PT6A-41 engine has already been fully developed and is being installed in the FY 78 production aircraft as well as all commercial Beech A-200 aircraft. The ECP which will provide specific details and plans for engine conversion at the time of overhaul is being prepared.	ن بج
MILESTONES: Contract Award for ECP 1980 ECP Approval Contract Award Leadtime Production Rate Installation Starts Installation Completed	Y 79 1Q80 3Q80 2Q81 12 Months Unknown 1Q83 3Q85	
PROJECT FINANCIAL PLANS: (Amounts in thousands of dollars)	thousands of dollars)	
FY 81 FY 82 QTY COST QTY COST 30 617.0 18 391.0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	-
FY 79 FY QTY COST QTY ONA) (48.0) OMA) (16.0) OMA) (16.0) OMA) (16.0) OMA QTY OMA OMA QTY OMA	FY 82 FY 83 FY 84 FY 85 TOTAL PRO OTY COST OTY COST OTY COST OTY COST OTY COST OTY 18 391.0 9 207.0 (57.0) (15) (46.0) (60)	OCRAM COST 1215.0 (48.0) (16.0)
TOTAL 30 617.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1215.0
DRSAV.C Form 2075	P-1 SHOPP LIST PAGENO. BLI 19 CLASSIFICATION EXHIBIT P	IBIT P

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PAGE 2 of 2 Engine Conversion PIP 1-79-01-0602

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$\frac{\text{FY}}{10} = \frac{84}{5}$	FY 85
FY 83 1 2 3 4 5 5 5 5	FY 84
$\frac{\text{FY}}{\frac{1}{10}} \frac{82}{\frac{3}{10}} \frac{4}{\frac{4}{10}}$	FY 83
KIT DELIVERY SCHEDULE:	INSTALLATION SCHEDULE:

METHOD OF IMPLEMENTATION: Installation will be at the time of overhaul. Beech will make installation on the C-12A aircraft concurrent with the Automatic Feather/Automatic Synchronization Modification (PIP # 1-79-01-0603).

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•	GI ASSIFICATION		FY 81 BUDGET ESTIMATE
ĺ	REPORIS CONTROL SYMBOL DD-COMP (AR) 1052	AIRCRAFT	AIRCRAFT MODIFICATION DATE 21 AUB 79
cio 🐴	APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0270)	i:(G):	AUTO FEATHER/AUTO SYNCH PIP # 1-79-01-0603
	AIRCRAFT AFFECTED: G-12A		•
	DESCRIPTION/JUSTIFICATION: This chang failure occurs. It will also provide Improvement - Improved safety by stand	change will provide automat vide for automatic synchron standardization of fixed wi	change will provide automatic propeller feathering in the event that an engine vide for automatic synchronization of the propellers during operation. Type of standardization of fixed wing aircraft.
	DEVELOPMENTAL STATUS: Automatic propell on the FY 78 aircraft during production.	ller feather and synchroni n. The ECP setting forth	propeller feather and synchronization is fully developed and being incorporated uction. The ECP setting forth kit and application criteria is being prepared.
(Carried Marie)	MILESTONES: Contract Award for ECP ECP Approval Contract Award Leadtime Production Rate Installation Starts Installation Completed FROJECT FINANCIAL PLAN: FY 81 FY OTY COST 30 331.0 18	FY 79 1080 3080 3080 6 Months Unknown In thousands of dollars EY 83 COST 210.0 9 109.8	FY 81 2081 1083 3085 TOTAL PROGRAM TOTAL PROGRAM 57 650.8
	BASIS FOR COST ESTIMATE: (Amounts in t FY 79 FY 81 Ardware QTY COST 719 71	housands of dollars) FY 82 FY QTY COST QTY 18 210.0 9 18 210.0 9 1-105 -	83 FY 84 FY 85 TOTAL PROCRAM COST QTY COST QTY COST QTY COST QTY COST (19.0) (19.0) (18.0) (

EXHIBIT F 34

PAGE 2 of 2 Auto Feather/Auto Synch PIP #1-79-01-0603

$\frac{FY}{10} = \frac{84}{2}$	FY 85 1 2 3 4 5 5 5
FY 83 1 2 3 4 5 5 5 5	FY 84 1 2 3 4 5 5 5 5
$\frac{FY}{\frac{1}{10}} \frac{82}{\frac{3}{10}} \frac{4}{10}$	FY 83 1 2 3 4 5 5 5 10
KIT DELIVERY SCHEDULE:	INSTALLATION SCHEDULE:

METHOD OF IMPLEMENTATION: Installation will be at time of overhaul. Beech will make installation of the C-12A aircraft concurrent with the PT6A-41 engine conversion (PIP # 1-79-01-0602).

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. (CLASSIFICATION			FY 81 BI	81 BUDGET ESTIMATE	IMATE
	REPORTS CONTROL SYMBOL DD-COMP (AR) 1692	AIRCE	AIRCRAFT MODIFICATION		DATE 3.	3 Aug 79
	APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA0270)		MODIFICATION TITLE AND NO. Electric System PIP # 1-79	NO. Recognition Light 1-79-01-0604	on Light a	and
				•		
***************************************	DESCRIPTION/JUSTIFICATION: A stip. The lights will be turned are limited to use at or below electrical system will be modified.	small high-intensity for d on to permit the aircr 150 knots. Approach sp fied to provide for cock	PTION/JUSTIFICATION: A small high-intensity forward-shining white light will be installed in each wing The lights will be turned on to permit the aircraft to be seen during final approach. Landing lights mited to use at or below 150 knots. Approach speeds at major airports are in excess of 150 knots. The ical system will be modified to provide for cockpit switches and electrical system protection.	<pre>[11 be install [approach. L in excess of</pre>	illed in each win Landing lights of 150 knots. Ti rection.	h wing ghts • The
	DEVELOPMENTAL STATUS: Off the	shelf commercial option.	·u			
		1082 6 months Unknown 4082 4083				
	BASIS FOR COST ESTIMATE: (Amou	in thousands of d	ATE			·
	Hardware Publications (OMA) Application (OMA) TOTAL	COST QTY COST 66 116.0 (13.0) (22) (11.0 66 116.0	OTY COST 9 0 (44) (24.0) (AL PROGR	COST 116.0 (13.0) (35.0)	
	KIT DELIVERY SCHEDULE:	$\frac{\text{FY}}{1} = \frac{82}{2} = \frac{4}{10}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			
	INSTALLATION SCHEDULE:	FY 82 $\frac{1}{1}$ $\frac{2}{2}$ $\frac{3}{10}$	$\begin{array}{cccc} FY & 83 \\ \hline 1 & 2 & 3 & 4 \\ \hline 10 & 16 & 15 & 15 \end{array}$			
۵	DRSTSC Form 2075 Edition of 1 May 76, may b	be used. P-1 SHOPP LIST 1-107	- 1/21/80 BM 19	CLASSIFICATION		EXHIBIT P. 3a

PAGE 2 of 2 Recognition Light

PIP # 1-79-01-0604

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Cold

METHOD OF IMPLEMENTATION: This change will be incorporated in the last fourteen (14) FY 78 aircraft during production. The change will be accomplished using a contractor supplied kit. The kits will be installed by Beech Maintenance technicians at the individual aircraft locations.

811 19 1-108 - 1/21/80

Reports Control Symbol DD-COMP(AR) 1092	•	AIRCRAFT MODIFICATIONS			EXHIBIT	P-3
				ğ	Date: 3 Dec	79
MODEL: Ell-1 Outck Fix	I 77	19 80	FY 19 81	81	FY 1982	82 .
~ ~	Quantity (2)	Amount (Thousands) (3)	Quantity (4)	Amount (Thous ands) (5)	Quantity (6)	Amount (Thous ands)
Quick Fix **MN/ALQ-144 OMNI Directional IR.Jammer **MM-130 General Purpose Dispenser Hot Metal & Plume Suppressor **MN/ALQ-156() Missile Detector System	33 33	14,374.0 2,798:0 1,142.0	19 30	4,213.0 0 86.0 754.0	30	0 0 0 2,329.0
TOTAL	·	18,314.0		5,053.0	_	2,329.0
				·		
*Consolidated P-3a						
**P3a not included. No FY 81/82 programs	-					
•						
	1-109	1/21/80	8U 20			

CLASSIFICATION REPORTS CONTROL SYMBOL '' DD.COMP (AR) 1092	AIRC	AIRCRAFT MODIFICATION	CATION		FY 81 BUDG	81 BUDGET ESTIMATE DATE 3 Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN: AZ1200)	TY	MODIFICATION TITLE PIP # 1-75-01-0835	1 1	AND NO. Quick Fix	Fix	
AIRCRAFT AFFECTED: UH-1H Conv	UH-1H Converted to EH-1			•		
DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. This is a conversion program whice will proceed in two phases. Phase I will field aircraft with HF/VHF intercept and VHF jamming. Phase II will involve low rate production of new aircraft with Phase I characteristics plus a new VHF transmitter locatine system. Phase I is designed to provide a tactical, realtime communications intercept and jamming capability for early deployment at Division and Brigade level. Phase II adds later the additional capability of enemy transmitter locating which is designed for one or more aircraft to work on yielding transmitter	Type of Improvement - Operational Cap Phase I will field aircraft with ition of new aircraft with Phase I designed to provide a tactical, real nent at Division and Brigade level. I	- Operational Capability. aircraft with HF/VHF i aff with Phase I characte a tactical, realtime com Brigade level. Phase II for one or more aircraft	perational Capability. This is a conversion praircraft with HF/VHF intercept and VHF jamming. with Phase I characteristics plus a new VHF tractical, realtime communications intercept and gade level. Phase II adds later the additional one or more aircraft to work on yielding transments.	This is a convicept and VHF tics plus a ne nications inter is later the advork on yield:	conversion program which VHF jamming. Phase II a new VHF transmitter intercept and jamming he additional capability ielding transmitter	ogram which Phase II nnsmitter jamming capability
DEVELOPMENT STATUS Phase I completed DT/OT II in Nov 73 with EH-1H (LP-U) type classification in May 74. DT/OT III and aircraft delivery was completed in Jun 78. Phase II completed DT/OT II in Apr 77. Contract award is anticipated during the 4th Qtr FY 79 with aircraft delivery commencing 1st Qtr FY 82.	s. Justification is cont completed DT/OT II in Nov ry was completed in Jun 7 during the 4th Qtr FY 79	ained in the 73 with EH- 8. Phase II	ed in the "Quick Fix" ROC. with EH-1H (LP-U) type classification Phase II completed DT/OT II in Apr 77. th aircraft delivery commencing lst Qtr	ROC. e classific /OT II in A	ation in May pr 77. st Qtr FY 8%	74.
Pháse IA & IB GFE Awards Test Equip Awards Hay 75 (IA) Test Equip Awards Hay 75 (IA)	Har 76 (IB) Aug 75 (IA) Aug 75 (IA)	<u>FY 7T</u> Jul 76 (IB)	FY 77 Nov 76 (IB) Nov 76 (IB) Jan 77 (IB)	FY 78	FY 79	FY 80
Phase II GFE Awards Test Equip Awards EH-1 Award			Oct 76	May 78 May 78 4Q 79	May 78 May 78 4Q 79	10 80 10 80 10 80
•	1-110	- 1/21/80				,
DRSAV-C Form 2075	P-1 SHOPPLIST PAGE	PAGENO.	20	CLASSIFICATION		EXHIBIT PJa

FY 81 BUDGET ESTIMATE

SYSTEM: EH-1

PIP NO: 1-75-01-0835H

PIP DESCRIPTION:

PROJECT FINANCIAL PLAN: (Amounts in thousands of dollars)

							}	[
•							TOTAL	QTY AMT	-	•	 _
	FY 77	AMT	9.176.6	7,115.0		17,086.6	FY 81	AMT		,	
		OTY	14	1		14		QTY		ı	
	FY 7T	AMT	16.6	1	42. No. 19	16.6	FY 80	AMT	. .	i	
) LIO	•	i		1		QTY			
	FY 76	AMT	3,206.1	152.0		3,358.1	FY 79	AMT		2,005.0	 2,005.0
		OTT	ı	'		1		QTY	·	ı	1
	FY 75	AMT	3,588.3	1		3,588.3	FY 78	AMT	ı	10,800.0	10,800.0
		QTY	4	1		4		QTY	1	٧	5
			PHASE I	PHASE 11		PROGRAM TOTAL			PHASE I	PHASE II	
			•								

Ули-1н. aircraft are Phase IA aircraft to Phase IB and the The aircraft represents conversion of Phase aircraft to be replaced by EH-1 Phase IB aircraft.

20 - 1/21/80 1-111

QUICK FIX

8.0 9,971.6 2,928.0 1,388.9 4,227.8 1,418.9 FY 77 16.6 16.6

PHASE II

PHASE II	FY 76	FY 77	FY 78	FY 79
Engineering	130.0	503.0	2,299.0	1
Data	Ē	350.0	2,815.0	1
Tests(10 a/c, 2 training, IDF)	1	(1) 329.0	(7) 1,478.0	ı
Install. (10 a/c, l trainer)	1	-	(6) 705.0	·
GFE (1) (2) (10 a/c, 2 trainers)	17.0	(3) 1,806.0	52.0	52.0 (4) 2,005.0
Floats $\Lambda\Delta$	5.0	(1) 2,013.0	174.0	1
Test Equipment $\Lambda(2)$	1	(6) 737.0	-	1
Aux Power Unit (3)	I	(2) 70.0	(1) 60.0	1
CFE (10 a/c, 2 trainers).		(3) 1,307.0 (4) 3,217.0	(4) 3,217.0	1
PHASE II Subtotal	152.0	7,115.0	10,800.0	2,005.0

A Quantities indicate DF sets and not all GFE procurement.

A APR-39(V)1 and associated test equipment will be updated to APR-39(V)2 configuration.

(4) TLQ-17A, (3) ALQ-151, (2) APR-39(V)

20 1-112 - 1/21/80

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SYSTEM: EH-

PIP DESCRIPTION: QUICK FIX Pg. 3 of 4 PIP NO: 1-75-01-0835

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars) (CONTINUED) PHASE I FY 7T 323.1 24.0 1,410.0 1,241.0 FY 76 250.2 46.0 202.0 1,100.0 1,990.1 FY 75 In-House Support Ell-1 Conversion Test Equipment PHASE IA & IB AN/ARM-164 GFE

PHASE I Subtotal

3,206.1

3,588.3

SYSTEM: EH-1

PIP NO: 1-75-01-0835H

LE RECENTION OF THE PROPERTY O

PIP DESCRIPTION: QUICK FIX Pg. 4 of 4

METHOD OF IMPLEMENTATION: Phase IA by Navy, Phase IB will be Army Depots. Phase II planned to be sole source contract.

AIRCRAFT GFE DELIVERY AND INSTALLATION SCHEDULE FOR CONVERSION PROGRAM:

	-	Υ 7	0 9	TRS	FY 76 QTRS FY7T FY 77 QTRS	FY	77	QT	RS	FY	FY 78 QTRS	QT	RS	FY 79 QTRS	79	QT	RS
	-	2	3	4		1	2	3	4	1	2	3	4	Ţ	2	3	4
GFE DEL	1	J	1	ı	1	1	1	3	1	1	4	4	4	2	1	١,	3
JND	-	1	-	1	ι	1	_	1	3	ı	2	1	!	2	1	1	1
COMP	1	1	1	ı	1	1	1	-	1	-	-	4	*	-	1	-	7

*Initiation of Phase II.

Phase II aircraft. Phase I aircraft and **Upon completion there will be

20 80 1-113 - 1/21/80

CLASSIFICATION	FY 81 BU	81 BUDGET ESTIMATE
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	AIRCRAFT MODIFICATION DATE	.TE 3 AUG 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN: AZ1200)	MODIFICATION TITLE AND NO, Hot Metal & P Suppressor, PIP # 1-78-01-1380	Plume
AIRCRAFT AFFECTED: EH-1H/X		
DESCRIPTION/JUSTIFICATION: Type of Improvement - Operatio an engine nacelle/exhaust modification which reduces the 1 aircraft vulnerability to IR seeking air defense missiles.	DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. The Hot Metal and Plume Suppressor an engine nacelle/exhaust modification which reduces the infrared (IR) signature and thereby decreases the aircraft vulnerability to IR seeking air defense missiles.	Suppressor is asses the
DEVELOPMENT STATUS:		-
First Phase Engineering Started Prototype Delivered Govt Test Completed ECP Approval	Nov 78 10 80 30 80 10 81	
MILESTONES:		
Production Contr Award Delivery Starts Installation Starts	2Q 81 2Q 82 3Q 82	
PROJECT FINANCIAL PLAN: (Amounts in the	thousands of dollars)	-
FY 81 Qty Cost 30 754.0	TOTAL PROGRAM Qty Cost 30 754.0	
BASIS FOR COST ESTIMATE: (Amounts in th	in thousands of dollars)	-
Contr Non-Recur 211.0 Suppressor Kits 30 543.0 Installation (OMA) 754.0	FY 82 TOTAL PROGRAM Qty Cost 211.0 211.0 30 543.0 (30) (27.0) 754.0	
DRSTS-C Form 2075 Edition of 1 May 76, may be used. P	P-18HOPP LIST PAGE NO. CLASSIFICATION	EXHIBIT P. 3a

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HOT METAL & PLUME SUPPRESSOR PIP # 1-78-01-1380

Exhibit P-3a Page 2 of 2

METHOD OF IMPLEMENTATION: Airframe Modification Kits will be applied in the field by contract and/or depot contact teams. Kit installation time is estimated at 30 manhours.

KIT DELIVERY SCHEDULE:

INSTALLATION SCHEDULE:

FY 82

1-115 - 1/21/80 **BLJ 20**

FY 81 Budget Estimate

ACTIVITY 2 - Reports Control Symbol DD-COMP(AR) 1092		AIRCRAFT MODIFICATIONS			EXHIBIT	P-3	
APPROPRIATION: APA/2 (SSN AA0400)				Da	Date: 3 Dec 79	6	<u>,)</u>
MODEL: OH-58 A & C	F 1	19 80	Fr 19 ₈₁	1	FY 19 82	82	
MODIFICATION (1)	Quantity (2)	Amount (Thousands) (3)	Quantity (4)	Amount (Thous ands) (5)	Quantity (6)	Amount (Thousands)	
**Airframe Defrost System Kits		1,700.0					
**HF NOR Communication System		3,234.0					
*Improved "VHF-FM - NOE Communications	09	1,266.0	262	3,126.0	155	1,669.0	
Improved Tail Rotor System			125	1,274.0	327	3,331.0	
		6,200.0		0.007,4		5,000.0	(Control
							
•							
*Consolidated P-3A **P3a not included. No FY 81/82 Programs							
	1-116	1/21/80	R[1 22				

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CLASSIFICATION

Edition of 1 May 76, may be used. P-1 SHOPP LIST PAGE NO.

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CLASSIFICATION			FY 81 B	FY 81 Budget Estimate	
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092).	AIRCRA	AIRCRAFT MODIFICATION		DATE 3 Dec 79
APPROPRIATION/BUDGET ACTIVITY APA/2 (SSN AA	ACTIVITY (SSN AA0400)		MODIFICATION TITLE AND NO, Improved Tail Rotor System,	AND NO. r System, 1-79-01-0215	.15
AIRCRAFT AFFECTED: OH-58C	285			•	
DESCRIPTION/JUSTIFICATION: Type to provide improved tail rotor aggravated in the OH-58C with	Tyl otor ith	ment - Operat il rotor cont horsepower,h	Type of Improvement ~ Operational Capability. The port control. Tail rotor control problems associated the its increased horsepower, higher gross weight, and	pe of Improvement - Operational Capability. The purpose of this modification is control. Tail rotor control problems associated with the OH-58A have been its increased horsepower, higher gross weight, and its use in scout missions.	modification is thave been the missions.
DEVELOPMENT STATUS:					
Performance Specification compl	on completion date:	10 80			
Milestones:	FY 79	FY 81	FY 82	FY 83	
Engineering Contract Award	ird 2Q FY 80				
Contract Award Kits Leadtime for Kits		2Q FY 81 12 Month	20 FY 82 12 Month	2Q FY 83 12 Month	
Prod Rate for Kits			20 Month		
Kit Installation Completed	pe	FY	FY	20 FY 84	
PROJECT FINANCIAL PLAN: (Amounts in thousands of	Amounts in thousand	s of dollars)			
FY 79 QTY AMT	FY 81 QTY AMT	FY 82 QTY AMI	FY 83 QTY AMT	TOTAL PROGRAM QTY AMT	
2,827.0	125 1,274.0 3	327 3,331.0	11 100.0	463 7,532.0	
		1-117	1-117 1/21/80 811 22		
			1		

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FY 81 Budget Estimate

- with a said to

OH-58 IMPROVED TAIL ROTOR SYSTEM PIP # 1-79-01-0215

BASIS FOR COST ESTIMATES (Amounts in thousands of dollars)

FY 79 QTY AMT

Kits Non-Recurring

G.

Exhibit P3A

Page 2 of 2

		0.0	1
ROGRAM	AMT	463 4,705.0 2,827.0	
TOTAL I	QTY	463	
83	QTY AMT	100.0	
FY	QTY	11	
32	QTY AMT	3,331.0	
FY	QTY	327	
81	QTY AMT	125 1,274.0	
FY	OTT	125	
79	AMT	0 2,827	

METHOD OF IMPLEMENTATION: By contract incorporation/field incorporation.

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7,532.0

463

100.0

11

327 3,331.0

1,274.0

125

2,827.0

TOTAL

KIT DELIVERY SCHEDULE:

FY 84	$\frac{1}{70}$ $\frac{2}{11}$ $\frac{3}{4}$		1 2 3 4 70 11 70 11
FY 83	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
FY 82	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	INSTALLATION SCHEDULE:	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

22 3 1-118 - 1/21/80

	ACTIVITY 2 - AIRC Reports Control Symbol DD-COMPT(AR) 1092	AIRCRAFT MODIFICATIONS 1092	ICATIONS			EXHIBIT	P-3
PA	APPROPRIATION: APA/2 FY 81 OSD Budget				De	Date: 1 4 Dec 1979	979
<u> </u>	MODEL: Airborne Avionics SSN AA0700	FY 1980		FY 1981	•	FY 1982	
	MODIFICATION (1)	Quantity (2)	Amount (Thousands)	Quantity (4)	Amount (Thousands) (5)	Quantity (6)	Amount (Thousands) (7)
<u></u>	AN/APN-209(V) Radar Altimeter				1,933.0		
	Improved MK-1564()/AR Head Set						365.0
	AN/ARC-114 Homing (PIP 0034) Radio Set		· · · · · ·		0.009		
	AN/ARC-114 (PIP 0100) Radio Set				265.0		
	AN/ARC-114 (PIP 0106) Radio Set				405.0		·
(SA)	AN/ARN-89 Direction Finder Set	•			950.0		715.0
	RT-1167/ARC-164(V) Radio Set				879.0		824.0
	Improved Reliability of LDNS AN/ASN-128				768.0		496.0
	TOTAL				5,800.0		2,400.0
Arriva.							
·		1-119 -	1/21/80	BLI 24	•		

	Qu's			
DATE 21 111, 70	Sinc is	cuits (PMC) will ceiver. The S/S is or wiring / of the radar /S devices as		•
-	LE AND NO lar Altimeter 1-80-07-0701	e (S/S) transmitter with automatic power management circuits (PMC) willininate interference on the AN/APR-39 Radar Warning Receiver. The S/Sepresent AN/APN-209 package so no aircraft modifications or wiring S/S system. Side Benefits include reduced detectability of the radar onment and also the increased reliability inherent in S/S devices as		2.
MODIFICATION	MODIFICATION TITLE AN/APN-209(V) Radar	with automatic ce on the AN/APR 9 package so no enefits include increased relia		1/21/80
EQUI PAENT P.		Models of Aircraft Affected: NA Description/Justification: A solid state (S/S) transmitter with automatic power management circ be incorporated into the AN/APN-209 to eliminate interference on the AN/APR-39 Radar Warning Rec transmitter will be incorporated into the present AN/APN-209 package so no aircraft modification changes will be required to install the S/S system. Side Benefits include reduced detectability altimeter in an electronic warfare environment and also the increased reliability inherent in S/ opposed to tubes.	t in FY 81.	1-120 -
MBOL	1	ected: NA Lion: A solid the AN/APN-209 ncorporated int ed to install onic warfare e	Program to start 1081 1082 1082 3083 3083	• .
REPONTS CONTROL SYMBOL	APPROPRIATION/BUDGET ACTIVITY APA/2 FY 81/82	Models of Aircraft Affected: NA Description/Justification: A solid stat be incorporated into the AN/APN-209 to e transmitter will be incorporated into th changes will be required to install the altimeter in an electronic warfare envir	Development Status: P Milestones: Initiate Engineering IPR/PROD Decision First Prod Hdw Del First Kit Applied Last Prod Hdw Del Last Kit Applied	

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P-1 SHOPP LIST PAGE NO.

CLASSIFICATION

ETHIBIT P3a

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Page 2 of 2	Total Program Qty Amt	621 1.933	Program Qty Amt
			FY-82 Qty Amt
-80-07-0701	Fγ-82 Qtγ Amt		FY-81 Budget +1 Qty Amt
AN/APN-209(V) Radar Altimeter 1-80-07-0701	Fγ-81 Budget + 1 Qty Amt	621 1.933	FY-80 Budget Qty Amt
AN/APN-209(V)	FY-80 Budget Qty Amt		FY-79 Current Oty Amt
MODIFICATION TITLE AND NO:	FY-79 Current Oty Amt		ST ESTIMATES: FY-78 E Prior OLY Amt
MODIFICATION	FY-78 FY-78 FY-79 C Prior Currer OLY Amt OLY		BASIS FOR COST ESTIMATES: FY-78 E Prior OLY Amt

100 100 100 11,833		621 1,933
	1	
.100		621 1.933
	1	
SPARES NOÑ RECUR KITS	·	TOTALS

METHOD OF IMPLEMENTATION: Under this effort the manufacturer will retrofit 2323 units which have been produced on contract. A pool of modified units will be held by the manufacturer to be used in a one for one replacement with the fielded units during the retrofit process.

FY-83	381 381	
FY- 82	1 2 3 4 295 295 295	
KIT DELIVERY SCHEDULE:		

! -	381
اء م	295
FY-82	295

INSTALLATION SCHEDULE:

295 295

381 381

381

1-121 - 1/21/80 8[]

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DATE 31 Dec 79	1-81-07-0700	ded version of the current communications with the improved communications system, of improved cables and connectors, a linear The kit provides improved TEMPEST perwiring and increased microphone output. In a noise immunity of the microphone and ing the combined communications system pro-			·
MODIFICATION	MODIFICATION TITLE AND NO. Improved MK-1564()/AR, PIP	kit, INK-1564()/AR is an upgraded version of the current communications Protective Helmet, compatible with the improved communications system, ft systems. The kit consists of improved cables and connectors, a line dearcup/transducer assembly. The kit provides improved TEMPEST perparated twisted shielded pair wiring and increased microphone output. Improved frequency response and noise immunity of the microphone and ing loss is reduced by decreasing the combined communications system prils reaching the aviator's ears.			- 1/21/80 PG 2k
EQUIPMENT M	(SSN AA0700)	NA The improved kit, IJK-1564()/AR PH-4 Flyer's Protective Helmet, n Army aircraft systems. The ki an integrated earcup/transducer physically separated twisted sh hanced by the improved frequency Aviator hearing loss is reduced nt noise levels reaching the avi	o start in FY 82.	N N M M	- 661-1
CLASSIFICATION REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	APPROPRIATION/BUDGET ACTIVITY APA/2 FY 82	Hodels of Aircraft Affected: NA Description/Justification: The improved kit, MK-1564()/AR is an upgraded version of the current communications system, system package used on the SPH-4 Flyer's Protective Helmet, compatible with the improved communications system, C-10414()/ARC, to be used in Army aircraft systems. The kit consists of improved cables and connectors, a linear microphone M-162()/AIC; and an integrated earcup/transducer assembly. The kit provides improved TEMPEST performance through the use of physically separated twisted shielded pair wiring and increased microphone output. Speech intelligibility is enhanced by the improved frequency response and noise immunity of the microphone and earcup/transducer assembly. Aviator hearing loss is reduced by decreasing the combined communications system processed and penetrating ambient noise levels reaching the aviator's ears.	Development Status: Program to start in	Milestones Initiate Engineering 1082 Ind/Eval/Design Plan 2082 Ind Eval Report 1083 IPR/PROD Decision 2083	•

1-122 - 1/21/80 P-1 SHOPPLIST PAGE NO.

24

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CLASSIFICATION

EXHIBIT P3a

Total Program Oty Ant	365	Tot.
•		FY-82 Qty Amt
FY-82 Qty Amt	.365	FY-31 Budget +1 Qty Amt
FY-81 Budget + 1 Oty Amt		FY-80 Budget Qty Amt
FY-80 Budget Qty Amt		FY-79 Current Qty Amt
PROJECT FINANCIAL PLAN: FY-76 FY-79 F Prior Current Qty Amt		BASIS FOR COST ESTIMATES: FY-78 F Prior Oty Amt
	ECT FINANCIAL PLAN: 6 FY-80 FY-81 ior 6 Current Budget + 1 6 6 Ant 6 6 6 6 6 6 6 6	FY-80 FY-81 FY-82 . Progra Ant Oty Amt Oty Amt Oty Amt .365

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Total Program Qty Ant

.365

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Total Program Oty Amt

.365

.365

SPARES NON RECUR KITS OMA

TOTALS

.365

.365

79 Description/Justification: The purpose of this program is to redesign the homing card which will correct basic deficiencies in the performance and reliability of the AN/ARC-114A radio set. Engineering effort involves change from amplitude to phase comparison for improved system reliability and performance. 31 Dec DATE MODIFICATION TITLE AND NO. AN/ARC-114 Homing PIP 1-78-07-0034 24 Procurement data package is in final review stage. MODIFICATION - 1/21/80 P-1 SHOPP LIST PAGE NO. 1-124 EQU I PMENT 1078 Complete 4080 1081 1082 2082 (SSN AAO700) AN/ARC-114A First Production Hardware Delivery First Kit Applied Last Production Hardware Delivery APPROPRIATION/BUDGET ACTIVITY Models of Equipment Affected: REPONTS CONTROL SYMBOL DD-COMP (AR) 1092 Development Status: Initiate Engineering Last Kit Applied CLASSIFICATION CLASSIFICATION Milestones:

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EXHIBIT P3a

MODIFICATION TITLE AND NO: AN/ARC-114 PIP 1-78-07-0034

FY-79 Current Qty Amt FY-78
FY-79
FY-79
FY-79
GTY Ant Current

FY-81
Budget + 1
Qty Amt
2175 .600 FY-80 Budget Oty Amt

FY-82 Amc Qt/

Total Program Qty Amt 2175 1.170

BASIS FOR COST ESTIMATES:
FY-78
E Prior
OTY Ant

FY-80 Budget Qty Amt FY-79 Current Qty Amt

FY-81 Budget +1 Qty Amt

FY-82 Qty Amt

Total Program . Oty Amt

SPARES NCN RECUR KITS (ONA)

.248

TOTALS

2175 (4600) (.094) (1400) (.030) 2175 .600

2175 (6000) (.124) 2175 1,170

Install kits at direct support level. HETHOD OF IMPLEMENTATION:

KIT DELIVERY SCHEDULE:

1150 1150 1150 1150 FY-81 INSTALLATION SCHEDULE: INDUCTIONS/COMPLETIONS

BLI 24 700 700 1-125 - 1/21/80

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DATE 31 Dec 79		N/ARC-114() Radio. detail the able for the			•	EXHIBIT P3a
MODIFICATION	MODIFICATION TITLE AND NO. AN/ARC-114 PIP 1-80-07-0100	Models of Equipment Affected: N/A Description/Justification: The purpose of this program is to provide ECCM protection for the AN/ARC-114() Radio. Recent experience in the Middle East, as well as intelligence reports and vulnerability studies detail the susceptibility of Army Communications to enemy jamming. There is currently no protection available for the VHF/FM radio. An applique will be provided to attenuate jamming signals automatically.			1/21/80 6<u>U</u> 24	
		ram is to celligenco ing. Then nuate jamm	.		1-126 -	PAGE NO.
EQUIPMENT	(SSN AA0700)	pment Affected: N/A stification: The purpose of this program ince in the Middle East, as well as intellig of Army Communications to enemy jamming. An applique will be provided to attenuate	In-house work has been completed.			P-1 SHOPP LIST ITEM NO.
	IIVITY	i: N/A The purpose dale East, a unications t	se work has	1080 3080 3081 4081		
SYMBOL.	UDGET AC	L Affected ication: in the Mid Army Commu				
CLASSIFICATION REPORTS CONTROL SYMBOL. DD-COMP (AR) 1092	APPROPRIATION/BUDGET ACTIVITY	Models of Equipment Affected: N/A Description/Justification: The purpose of this Recent experience in the Middle East, as well a susceptibility of Army Communications to enemy VHF/FM radio. An applique will be provided to	Development Status:	Milestones: Initiate Engineering Ind Eval/Design Plan Ind Eval Report Production Decision		CLASSIFICATION

Page 2 of 2	Total Program Qty Amt .265	Total Program Qty Amt	.265	.265
		FY-82 Qty Amt		
	FY-82 Qty Amt	FY-81 Budget +1 Qty Amt	. 265	. 265
AN/ARC-114 PIP 1-80-07-0100	FY+81 Budget + 1 Qtγ Amt	FY-80 Budget Qty Amt		
AN/ARC-114 PI	FY-80 Budget Qty Amt	FY-79 Current Qty Amt	1	
HODIFICATION TITLE AND NO:	PROJECT FINANCIAL PLAN: FY-78 FY-79 FY-79 Current QTY Amt QTY Amt	BASIS FOR COST ESTIMATES: FY-78 6 Prior QEY Amt	SPARES NOW RECUR KITS OMA	578
100 E	PROJEC FY-78 & Prio QTY	BASI	SPAR NON KITS	TOTALS

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Windson ! EXHIBIT P3a utility and cargo aircraft with a variable power output amplifier, an efficient antenna coupler, an improved (or new) aircraft antenna, and all associated interconnecting hardware. The purpose is to provide the Army with communications effectiveness at Nap of the Earth (NOE) altitudes down to and including ground level. 31 Dec Description/Justification: Replace the present aircraft VHF-FM antenna and coupler on current scout, attack, DATE MODIFICATION TITLE AND NO AN/ARC-114 PIP 1-80-07-0106 242 **8**[] 1-128 - 1/21/80MODIFICATION PAGE NO. (SSN AA0700) EQUIPMENT P-1 SHOPP LIST ITEM NO. 2079 Complete 1Q81 Development Status: Initiated procurement action. × APPROPRIATION/BUDGET ACTIVITY Models of Equipment Affected: REPCRIS CONTROL SYMBOL **DD-COLISP (AR) 1092** Initiate Engineering Production Decision CLASSIFICATION CLASSIFICATION Milestones: APA 2

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Total Program Qty Amt

FY-81 Budget +1 Qty Amt

FY-80 Budget Qty Amt

FY-79 Current Oty Amt

E Prior Oty Amt

BASIS FOR COST ESTIMATES: FY-78

Program Qty Amt

Amt.

FY-81 Budget + 1 Oty Amt

FY-80 Budget Qty Amt

FY-78 FY-79 FY-80 FY FY-80 FY Current Budget
FY-79 Current Qty Amt

Page 2 of 2

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Implementation by individual aircraft type PIP actions.

METHOD OF IMPLEMENTATION:

TOTALS

1-129 - 1/21/80 BLJ 24

MODIFICATION TITLE AND NO: AN/ARC-114 PIP 1-80-07-0106

31 Dec Description/Justification: Through FY 77 control head and mixer-IF module are being updated to incorporate coherant detection techniques and improved beacon identification. The design also provides remote control capability for operation in IACS configured aircraft system. FY 80-82 will provide production mod kits for retrofit. The baseline will be changed for future production. The AN/ARN-89 is most needed in the presence DATE RODIFICATION TITLE AND NO. AN/ARN-89 PIP 1-72-07-0210 42 Environmental/Bench tests have been performed satisfactorily. 8 1-130 - 1/21/80MODIFICATION PAGE NO. of electrical storms and man-made electrical interference. (SSN AA0700) 2076 Complete 1082 3082 3084 4084 EQUI PMENT P-1 SHOPP LIST ITEM NO. N N First Production Hardware Delivery Last Production Hardware Delivery APPROPRIATION/BUDGET ACTIVITY Models of Equipment Affected: REPORTS CONTROL SYMBOL **DD-COMP (AR) 1092** Development Status: Initiate Engineering First Kit Applied Last Kit Applied Milestones: APA 2

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EXHIBIT P3a

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MODIFICATION TITLE AND NO: AN/ARN-89 PIP 1-72-07-0210

Page 2 of 2

Fγ-81 Budget + 1 Qty Amt 800 .950 FY-80 Budget Qty Amt Oty A FY-79 Current PROJECT FINANCIAL PLAN: FY-78 EV-79 B B £ Prior QEX

Amt .715 FY-82

Future

Total Program Qty Amt 3559 2.841

FY-79 Current Qty Amt BASIS FOR COST ESTIMATES: FY-78 E Prior Qty Amt

FY-80 Budget Qty Amt

FY-81 Budget +1 Qty Amt

Future Qty Amt FY-82 Qty Amt

퇭 Total Program Oty Am (1.498)

(359) (.144) (3200) (1.354) (3559)

2.841

.715 1000 .738

1759

.950

800

SPARES NON RECUR KITS (OMA)

.438 TOTALS

Kits may be installed at direct Mod kits will be supplied by contractor to depot. support level (AVIM).

KIT DELIVERY SCHEDULE:

FY-83

INDUCTIONS/COMPLETIONS

INSTALLATION SCHEDULE:

1-131 - 1/21/80 811 24

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METHOD OF IMPLEMENTATION:

MODIFICATION TITLE AND NO. RT-1167/ARC-164(V) PIP 1-80-07-0086 MODIFICATION EQU I PMENT (SSN AA0700) APPROPRIATION PRUDGET ACTIVITY REPORTS CONTROL SYMBOL. DD-COMP (AR) 1092 APA 2

79

DATE 31 Dec

N/A Models of Equipment Affected: Description/Justification: The purpose of this program is to develop interface serial/parallel radio modules, which comply with MIL-STD-1553B requirements, and be compatible with the integrated Avionics Control System (IACS). The program is for engineering and software development only.

In house work has been completed, Development Status:

Milestones:

Initiate Engineering Production Decision

1081 3082

W.

1-132 - 1/21/80

PAGE NO.

P-1 SHOPP LIST ITEM NO.

CLASSIFICATION

EXHIBIT P3a

M33

Page 2 of 2	Total Program Qty Amt 1.703	Total Program Oty Amt	1.703
	•	FY-82 Qty Ant	.824
-0086	FY-82 0ty Amt .824	FY-81 Budget +1 Qty Amt	. 879
RT-1167/ARC-164(V) PIP 1-80-07-0086	Fγ+81 Budget + 1 Qty Amt	FY-80 Budget Qty Amt	
XT-1167/ARC-164	FY-80 Budget Oty Amt	FY-79 Current Qty Amt	
MODIFICATION TITLE AND NO: F	PROJECT FINANCIAL PLAN: FY-78 FY-79 FY-79 Current Qty Amt	BASIS FOR COST ESTIMATES: FY-78 E Prior Oty Amt	SPARES NON RECUR KITS OMA TOTALS
5	PRO OTY	BAS	SPA NON KIT OMA

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CLASSIFICATION					
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	EQUIPMENT		MODIFICATION	DATE 12 Dec 79	Ę
APPROPRIATION/BUDGET ACTIVITY APA/2 FY81	(SSN AA0700)	MOD	MODIFICATION TITLE AND NO. PIP 1-80-07- Improved Reliability of LDNS AN/ASN-128	-0082	(E.4
Models of Aircraft Affected: N/A					
Description/Justification: To imattack/surveillance Mission and ea(SDC) and Control Display Unit (GI (PDM) and Integrated Avionics Conf	orove Lightweight ise of interfacing (U) for Digital Director (LACS)	Doppler N g with other ata Bus (M')	Description/Justification: To improve Lightweight Doppler Navigation System (LDNS) capability for critical attack/surveillance Mission and ease of interfacing with other avionics equipment. Modify Signal Data Converter (SDC) and Control Display Unit (CDU) for Digital Data Bus (MIL-STD-1553A) Compatibility, Projected Map Display (PDM) and Integrated Avionics Control System (IACS) interface compatibility. This PIP does not improve accuracy.	capability for critical Modify Signal Data Converter lity, Projected Map Display IP does not improve accuracy.	
Development Status: The FY81 and through testing and ending with a	and FY82 dollars will fund the overall th a complete and revised data package f	l fund the Ised data _l	FY82 dollars will fund the overall program for prototype design and assembly complete and revised data package for procurement.	sign and assembly	
Initial Engineering Prototype Fabrication Prototype Testing Complete Tech Documentation Avail.	Est. Dates 4th Qtr	Est. Dates 4th Qtr	Est. Dates 2nd Qtr. 4th Qtr.		
•	1	1-134 1/21/80	1/80 B[] 24		No.
	P-1 BHOPP LIST ITEM NO.	PAGE NO.			_
				FXMIBIT D. 34	

Page 2 of 2	Total Program Qty Amt 6 2.139	Total Program Qty Amt	6 2,139	6 2.139
/ASN-128	•	FY-82 Ant	.496	967.
NS AN	Amt . 496	<u>Q</u>	0	0
y of Li	FY-82 0ty 0	FY-81 Budget +1 Qty Ant	.768	.768
labilit	161	FY-8 Budge	0	0
1-80-07-00821 Improved Reliability of LDNS AN/ASN-128	FY-81 Budget + 1 Qty 0 .768	FY-80 Budget Qty Amt		
3821 Im	M MIOI		1	10
	FY-80 Budget QEY Amt	FY-79 Current Qty Ant	6 .875	6 .875
ITLE AND NO: PIP	IAL PLAN: FY-79 Current QEX Amt 6 .875	ST ESTIMATES: FY-78 6 Prior Qty Ant	-	
MODIFICATION TITLE AND NO:	FY-78 FY-78 6 Prior Curr QEY Ame QEY 6	BASIS FOR COST ESTIMATES: FY-78 & Prior QEY Ant	SPARES NON RECUR KITS OMA	TOTALS
			تغر	

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CONSOLIDATED P-3a's

XM-130 General Purpose Dispenser
NOE Communications
AN/ALQ-156 Missile Detector System
AN/ALQ-162(V)2 Continuous Wave Radar Jammer
AN/ARC-164 Radio

1-136 - 1/21/80

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CLASSIFICATION

PAGENO 1 of 6

Edition of 1 May 76, may be used. P-1 SHOPP LIST

2075

DRSTS-C Form 1 Apr 78

EXHIBIT P. 3a

XM-130 General Purpose Dispenser

Exhibit P-3a Page 2 of 6

Section 1

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

7

ОСВАН 4,063.0 1,498.0 227.0 495.0 65.0 292.0 (674.0) 6,641.0	TOTAL PROCFAH QTY 190 567.0 200 834.0 221.0 615.0 (190) (268.0) 2,237.0			j
TOTAL PROCRAM QTY	a	COGRAM COST 297.0 88.0	48.0 146.0 (328.0) 579.0	
<u>FY 82</u> <u>QTY COST</u> (130) (426.0)	FR 81 QTY COST (190) (568.0)	TOTAL PROGRAM COST 110 297.0	(110)	
FR 81 100 2,065.0 162 1,028.0 227.0 152.0 (80) (248.0) (77 80 QTY COST	TY 80 QTY COST	(110) (328.0)	1/21/80
NY 80 017 COST 110 1,998.0	PY 79 QTY COST 150 485.0 80 225.0 348.0 1,250.0	Fr 79 QTT COST 110 297.0 35 88.0	146.0 <u>531.0</u>	1-138 - 1/2
914 OST 80 470.0 496.0 65.0 140.0	PY 78 QTY COST 40 82.0 120 609.0 29.0 267.0	017 COST	48.0	
Mod Kits Mod Kits XM-130 System STE ECP/MWO Non-Rec (GFE) ARRADCOM Spt Tnstallations(OMA)	CH-58C Nod Kits YM-130 Sys STE Non-Recurring Installations (OMA) TCTAL	Hod Kits	Sil. Non-Recurring ARRADCOM Spt Installations (OMA) TOTAL	

Dispenser
Purpose
General
XM-130

3

Exhibit P-3a Page 3 of 6	TOTAL PROGRAM QTY COST	649.0	39.0	1,318.0				PROGRAM COST 376.0 518.0 137.0 342.0 141.0 223.0
Ex	YY 82 TOT QTY	89			ROCRAM	307.0	280.0 59.0 656.0	TOTAL PROGRAM QTY 91 376. 104 518. 137. 141.
enser	<u>FY 81</u> <u>FY</u> QTY QTY				TOTAL PROGRAM QTY COST	41		FY 81 49 220.0 26 156.0 42.0 22.0 82.0 522.0
XM-130 General Purpose Dispenser	QTY COST Q				79 COST	45.0	7.0 59.0 111.0	FY 80 42 COST 42 156.0 60 298.0 75.0 119.0 123.0 771.0
KM-130 Genera	FY 79 QTY COST	172.0		172.0	FY 79 QTY COS	10	'	FY 79 QTY COST 18 64.0 20.0 342.0 18.0 444.0
	FY 78 QTY COST	477.0 89 630.0		1,107.0	78 COST	262.0 10.0	273.0	QTY COST Q7
	QTY COST		39.0	39.0	FY 78 QTY COS	31		OTY Y
	AH-15	ECP/MWO XM-130 Sys	Non-Recurring ARRADCOM Spt	Training Devices TOTAL	RU-21A/B/C/H	XM-130 Sys STE	Non-Recurring ARRADCOM Spt TOTAL	Mod Kits Mod Kits XM-130 Sys STE ECP/MWO Non-Recurring ARRADCOM Spt TOTAL

1-139 - 1/21/80

Dispenser
Purpose
Genera1
XM-130

PROGRAM	103.0	126.0 51.0	280.0 10.0 160.0	730.0		80.0	164.0 35.0	10.0	175.0		٤		(19) (57.0) (28) (84.0) (1,606) (5,064.0)
TOTAL		31				;	28			Y 84 COST	(242.0)		(66) (242.0)
18			10.0	23.0		26.0		30.0	86.0	OTY	(99)		(99)
K				·		19				77 83 QTY COST	(237) (824.0)		(237) (524.0)
FY 80	24 90.0	31.0	32.0	208.0				0.44	1,142.0	FIE	(238) (784.0)	(29) (91.0)	(9) (28.0) (406) (1,329.0) (237) (524.0)
F1 79 QTY COST	20 71.0	20.0	128.0	0.667						OTY COST (80) (248.0)	(190) (568.0) (110) (328.0) (418) (1297.0)	(55) (104.0)	$\begin{array}{ccc} (19) & (56.0) \\ (891) & (2,658.0) \\ \hline \end{array} $
F7 78													(6) (11.0)
		STZ ECT/MO	Non-Recurring ARRADCOM Spt Training Device	TOTAL	BC 20 EH-1H/X	X1-130 Sys	STE ECP/MMO	Non-Recurring ARRADCOM Sot	INSTALLATIONS (OMA):	CH-47C OTT COST	CH-1 AH-1 Ru-21	cv~ld RV~ld	EII-1II/X TOTAL
	1 N N N N N N N N N N N N N N N N N N N			Hod Kites World Kites YM-130 Sys STE FT 78 TH 80 FT 81 TOTI TOTI TH 55.C 11 55.C 20.0 11 55.C 20.0 Non-Recurring ARRADCOM Spt Training Device 128.0 32.0	Mod Kites Art 18	Hod Kite FY 78 TO	Mod Kite	## Note 1	## 80	1		We will be tree We will be tree We will be will	Mark Rite ARADOM Spt ARAD

1-140 - 1/21/80

FY 81 BUDGET ESTIMATE

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XM-130 General Purpose Dispenser

Exhibit P-3a Page 5 of 6

BASIS FOR COST ESTIMATE: (RECAP OF ALL SYSTEMS)

	FY 77 6	PRIOR	E	78	E	62	FY	80	FY	81	TOTAL	PROGRAM
	QTY COST	COST	QTY	YTY COST	QTY	TY COST	QTY	QTY COST	QTY.	QTY COST	QTY	QTY COST
Mod Kits			40	82.0	260	782.0	185	2,268.0	171	2,354.0	929	5,486.0
XM-130 Sys	80	470.0	240	1,501.0	163	493.0	104	517.0	188	1,072.0		4,053.0
STE				39.0		232.0		141.0		269.0	775	681.0
Non-Recurring		113.0		540.0		355.0		119.0		62.0		1,189.0
ARRADCOM Spt		179.0				351.0		330.0		234.0		1,094.0
Training Devices										1		
ECP/MMO		496.0		477.0		794.0		744.0				2,511.0
		1,258.0		2,639.0	•	3,007.0		4,119.0		3,991.0		15,014.0

** NETHOD OF IMPLEMENTATION: Depot/Contract teams will install mod kits as field applications on 89 AH-1S aircraft.

** Plans are to apply field mods on 2430 UH-1 aircraft. Provision require field mods with 6 aircraft being modified in conversion line. 19 RV-lD's will require field mods with balance being modified during Conversion. One each RU-21 A/B/C aircraft will be equipped with mod kit during prototyping, balance of 6 aircraft will require field mods. RU-21H aircraft will not require A Kits. Provision are installed during Guardrail V Program. 28 EH-1H/X aircraft will be retrofitted by contract teams. CH-47 A Kits will be applied as field mods.

XM-130 Ceneral Purpose Dispenser Exhibit P-3a Page 6 of 6	LE: $\frac{FY}{2} = \frac{7}{3} = \frac{7}{4} = \frac{FY}{2} = \frac{60}{30} = \frac{11}{40} = \frac{7}{40} = \frac{11}{40} = \frac{7}{40} = \frac{1}{40} = \frac{1}{20} = \frac{1}{2} = \frac{1}{3} = \frac{1}{4} = \frac{1}{40} = \frac{1}{$			15 15 15 15 10 10 4 5 5 5 4	5 4 5 5 5 4
	KIT DELIVERY SCHEDULE: CH-47C	OH-58 UH-1	AH-1 RU-21A/B/C	OV-1D EV-1D	ЕН-111/Х

TOTAL	*	*	*	196	9	84	19	78
1 2 3 6	1			57				
	CH-47C	OH-58	UH-1	AH-1	RU-21A/B/C	0.4-10	kV-1D	EH-111/X

KIT INSTALLATION SCHEDULE:

	TOTAL	*	•	*	296	•	ů,	19	28	•
	4				14				•	
FY 84	<u>ا</u>	l			20					
E	~	1			20 20 14		•			
		I			70				/80	
	4				60 57			•	1-142 - 1/21/80	
83	2 3	}			9				1	
Z	7	1			60				-147	
	=	ı			9				÷	
	4	70			28		'n		7	
82		40			9		30		3 2 2	
FY 82	~	30			9		∞		7	
	-4				3		30 30		m	
	4	0			6		S	~	8 6 5	
81	m	0			916		~	9	w	
FY 81	2	0			100 109 109		2	S	89	
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E	~	1				9				
	~	1								
FY 79	1234	}								
		CH-47	OH-58	1.11-11	AH-1	R13-7.1	CV-1D	RV-10	EH-111/X	

*No schedule shown for OH-58 and Ul-1. Delivery 6 installation dependent of provision of funds for not kit procuremen:

HODIPICATION TITLE AND NO. H-15, OH-58A/C, H-15, OH-58A/C, H-15, OH-58A/C, Trange while operating in the Nap-of-the-Earth (NOE) altitudes down to and inclustrange while operating in the Nap-of-the-Earth (NOE) altitudes down to and inclustrange while operating in the Nap-of-the-Earth (NOE) altitudes down to and inclustrange while operating in the Nap-of-the-Earth (NOE) altitudes down to and inclustration was in the final value obstructs line-of-Sight coverage was requisivable by SAC committee and further emphasized by DA and TRADC. The NOE Program is in the final review phase for the draft Required Operational on of DA staffing, ROC scheduled for DA approval. Black Box IFM procurement con the budget. The b	, L	REPORTS CONTROL SYMBOL	AIRCRAFT	FT MODIFICATION	NOI		3 Aug /9
DESCRIPTION/JUSTIFICATION: There tions from 0 to 50 Km range while level. In a hostile Electronic Wa are enhanced when Line-of-Sight, a combinate of are enhanced when Line-of-Sight, a combinate of sywave (NVIS) radio coveraguirements were established by SAG quirements were established by SAG RROC. Upon completion of DA sta scheduled for award in 4th Qtr FY funds are approved ROC Final Proc Data Package Solicitation & Eval Award Multi Cont - IFM Production Delivery Start - IFM (Production Delivery Start - IFM (Production Rate 100/Month) PIP NO. 16 AH-15 16 AH-15 16 AH-15 16 AH-15 17 AH-18 18 O-01-58A/C		APPROPRIATION/BUDGET ACTIVITY APA/2		MODIFICAT NOE CO	ION TITLE AND	NO.	
DESCRIPTION/JUSTIFICATION: There tions from 0 to 50 Km range while level. In a hostile Electronic We are enhanced when Line-of-Sight, a combinal cident Skywave (NVIS) radio covery quirements were established by SAG quirements were established by SAG (ROC). Upon completion of DA stascheduled for award in 4th Qtr FY funds are approved in the budget. The following milestones for processinal Proc Data Package Solicitation & Eval Award Multi Cont - IFM Production Delivery Start - IFM Production Delivery Start - IFM Production Delivery Start - IFM Production Rate 100/Month) 16 AM-15 16 AM-15 180-01-	ــــــــــــــــــــــــــــــــــــــ	AH-1S, OH-58A/				•	•
PROCUREMENT STATUS: (ROC). Upon completischeduled for award if funds are approved in The following milestorm of Final Proc Data Pack Solicitation & Eval Award Multi Cont - I Production Delivery (Production Rate 100) PIP NO. PIP NO. 16 AH-15 200H-58A/C		There e while ronic We Sight, a combinat o covera d by SA(rgent need fing in the Nationwent anvironment in Line-of-Sightimproved VHI e terrain mattee and furt	or Army Aircr p-of-the-Eart uccessful mis it Air-to-Air ?-FM and HF-SS asking obstruc	aft to have re h (NOE) altiti sion accomplic and Air-to-Gr B Radio that ts Line-of-Si d by DA and Tl	eliable secure udes down to a shment and air ound communica will provide Ne ght coverage W	d radio communica- nd including ground craft survivability tions are provided arly Vertical In- as required. Re-
The following milestones for procurement of GFE are provided: PY 78 FY 99 FY 80 FY 82 FY 80	-	PROCUREMENT STATUS: The NOE Program is i (ROC). Upon completion of DA staffing, R scheduled for award in 4th Qtr FY 80. HF funds are approved in the budget.	in the final 30C schedule: ? contract a	review phase d for DA appro ward indetermi	for the draft wal. Black B nate at this	Required Oper tox IFM procure time and will	ational Capability ment contract is be scheduled when
DA approved ROC Final Proc Data Package Solicitation & Eval Award Multi Cont - IFM Production Rate 100/Month) (Production Rate 100/Month) PIEM Not Rqd 16 AM0150 AA0150 AA0150 AA0400 1-80-01-0285-B-I 12 AM1-1S 1-143 - 1/21/80 1-143 - 1/21/80 1-143 - 1/21/80 1-143 - 1/21/80		The following milestones for procurement	of	provided:			
10 10 20 20 20 30 30 30 30 3		Y	78	FY 79	FY 80	FY 82	FY 83
16 AH-15 2 OH-58A/C 1-80-01-0285-A 1-80-01-0285-A 1-143 - 1/21/80 1-145-1/21/80 1-145-1/21/80		Package Eval t - IFM very Start - e 100/Month)			10 20 30 40		βį
1-143 CLASSIFICATION ITEM NO.		2∙ A∕c	i	. Not Rad		SSN . AA 0150 . AA0400	
P-1 SHOPP LIST ITEM NO.	444.53		1-143				
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P-1 SHOPP LIST PAGE NO.

CLASSIFICATION

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CLASSIFICATION	CLASSIFICATION DEDOBTE CONTROL SYMBOL	10								
00-00	DD-COMP (AR) 1092			AIRCRAFT	MODIF	MODIFICATION			DATE	3 Aug 79
APPROPRIA APA/2	APPROPRIATION/BUDGET ACTIVITY APA/2	ACTIVITY			MODIFI NO	CATION E COMMUN	MODIFICATION TITLE AND NO. NOE Communications			
MILESTONE FOR AIRFRAN Initiate Engineering Production Decision First Production Hwd First Kit Applied Last Kit Applied	MILESTONE FOR AIRFRAME: Initiate Engineering Production Decision First Production Hwd Del First Kit Applied Last Kit Applied	AH-1S 1Q 81 3Q 82 1Q 83 2Q 83 4Q 85	82 83 83 83	H	0H-58C 1Q 81 3Q 82 1Q 83 2Q 83 4Q 85		OH-58A 1Q 81 3Q 82 1Q 83 2Q 83 4Q 85			
PROJECT FIN FY 80 COST 1,562.0	FY 80 FY 81 COST COST COST 7,186.0	(Amounts in FY 82 COST 3,984.0	in thousands of FY 83 COST 5,847.0	do 1	lars) Y 84 OST 996.0	FY 85 COST 739.0	FY 86 COST 0		TOTAL PROGRAM COST 17,314.0	ZAM
BASIS FOR C	BASIS FOR COST ESTIMATES: FY 80 QTY AMT GFE IFM 57 432.0	(Amounts in thousands FY 81 FY 82 QTY AMT QTY A 309 2,698.0 345 3,32	in thousan FY QTY 345	inds of dollars) (82 FY AMT QTY 3,329.0 471	lars) FY 83 QTY AMT 471 4,739.0	II QTY 19.0 80	FY 84 Y AMT 0 823.0	FY 85 QTY	AMT QTY 1,262	TOTAL AME 12,021.0
STE IFM	10 47.0	15 85.0	8	0.64					33	181.0
KITS Nonrecur (OMA) APA	(713.0)	373 542.0 (608.0) 861.0) 350))	606.0	487 1,10	1,108.0 8	(30.0)	221 73	739.0 1,520 (42.0)	3,168.0 (1,449.0) 1,944.0
Inst1 (OMA) TOTAL APA TOTAL (OMA)	1,562.0 (713.0)	215 (405.0) 4,186.0 215(1,013.0)) 120) 120)) 120	(200.0) 3,984.0 (227.0)	487 (92 5,84 487 (99	(924.0) 386 5,847.0 (953.0) 386	386 (751.0) 996.0 386 (781.0)	312 (62 73 312 (66	(621.0)1,520 739.0 (663.0)1,520	(2,901.0) 17,314.0 (4,350.0)
METHOD OF I	METHOD OF IMPLEMENTATION: Appl. with TSARCOM formal application	Application	on of kil	ts will be	by depots	, modif	ication of kits will be by depots, modification lines and field units plan.	s and fi	eld units	in accordance
				1-144 -	- 1/21/80	0				•

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CLASSIFICATION												
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	(AR) 1092	MBOL			AIRC	AIRCRAFT N	IODIFIC	MODIFICATION			DATE 3	3 Aug 79
APPROPRIATION/BUDGET ACTIVIT APA/2	N/BUDG	ET ACTIV	117			Σ	ODIFIC	MODIFICATION TITLE AND NO. NOE Communications	rLE AN	D NO.	•	
BASIS FOR COST	ESTIMATES:		unts i	(Amounts in thousands of dollars)	ds of	dollars)				•		
		FY 80 AMT		FY 81 AMT		FY 82 AMT		FY 83 AMT		FY 84 AMT	FY 85 AMT	TOTAL
IFM AIRFRAME PROTOTYPE NON RECUR (OMA) AH-1S OH-58A OH-58C	OTOTYPE (OMA)	(415.0) (149.0) (149.0)		(542.0) (33.0) (608.0)		(27.0)		(29.0)		(30.0)	(42.0)	(1,085.0) (182.0) (182.0) (1,499.0)
IFM GFE APA. NONRECUR AH-1S OH-58A OH-58C		296.0 393.0 394.0		365.0 246.0 250.0								661.0 639.0 644.0
TOTAL GFE IFM APA AH-1H OH-58A OH-58C		1,083.0 106.0 326.0	61 87 161	\$61.0 555.0 752.0 1,391.0	195 24 126	1,871.0 234.0 1,224.0	452 9 10	4,568.0 81.0 90.0	53	564.0 125.0 134.0	761 147 354	1,944.0 7,558.0 1,298.0 3,165.0
TOTAL	25	432.0	309	2,698.0	345	, e	29.0 471	4,739.0	08	823.0	1,262	12,021.0
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CLASSIFICATION

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DATE 3 Aug 79		TOTAL QTY AMT	4 23.0 9 50.0 20 108.0 33 181.0	986 2,511.0 163 170.0 371 487.0 1,520 3,168.0	986 (1,809.0) 163 (351.0) 371 (741.0) ,520 (2,901.0)	10,753 6,561 17,314	
		FY 85 AMT		739.0	(569.0) 986 (52.0) 163 371 (621.0)1,520	739	
	NO.	QTY		221	290 22 312		
	AND	FY 84 AMT		136.0 18.0 19.0 173.0	(534.0) (60.0) (157.0) (751.0)	700 296 996	
NO	ON TI	QTY		55 16 18 89	288 27 71 386		
MODIFICATION	MODIFICATION TITLE NOE Communicati	83 AMT		1,075.0 16.0 17.0 1,108.0	(506.0) (239.0) (179.0) (924.0)	5,643 204 5,847	1/21/80
¥	Ĭ.	FY		456 15 16 487	288 114 85 487		6 - 1/2 PAGE NO.
		FY 82 AMT	12.0 12.0 25.0 49.0	432.0 30.0 144.0 606.0	(200.0)	2,315 1,669 3,984	1-146
		QTY	8 4 5 5	193 26 131 350	120	2.1	P-1 8H
	VITY	FY 81 AMT	11.0 38.0 36.0 85.0	129.0 106.0 307.0 542.0	(405.0)	1,060 3,126 4,186	
BOL.	T ACTI	QIX	2 7 6 15	61 106 206 373	215		
REPORTS CONTROL SYMBOL. DD-COMP (AR) 1092	APPROPRIATION/BUDGET ACTIVITY APA/2	FY 80 QTY AMI	STE IFM APA AH-1S OH-58A OH-58C TOTAL 10 47.0	KITS APA AH-1S IFM OH-58A IFM OH-58C IFM	Install (OMA) AH-1S IFM OH-58A IFM TOTAL	ACFT SYSTEM AH-1S IFM 296 OH-58 IFM 1,266 TOTAL APA 1,562	

CLASSIFICATION		÷	FY 81 BUDGET	BUDGET ESTIMATE
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092		MODIFICATION	NOI	DATE 3 Aug 79
APPROPRIATION/BUDGET ACTIVITY APA/2		MODIFICAT AN/ALQ-15	MODIFICATION TITLE AND NO. AN/ALQ-156() Missile Detector	System
		PIP NO's:	1-80-01-1077(0V-1D), 1 1-77-01-0877(CH-47C),	1-801-1177(RV-1D), 1-80-01-1777(EH-1H/K)
AIRCRAFT AFFECTED: 0V-1D (SSN: AZ3530) RV-1D (SSN: AZ2100) CH-47C (SSN: AA0250) EH-1H/X (SSN: AZ1200)	(23530) (22100) (A0250) A21200)			
DEVELOPMENT STATUS: Initiate Airframe Integration Engineering, ECP Approval 4Q FY 81	e Integration E FY 81	30	FY 80	
MILESTONES:	FY 80	FY 81	FY 82	
Airframe Mod Kit Cont Awd Prod Lead Time Airframe Mod Kit Deliveries Start Airframe Mod Kit Installation Starts AN/ALQ-156() Sys Cont Awd Prod Lead Time AN/ALQ-156() Sys Deliveries Start	1Q FY 81 24 months 1Q FY 83	81 1Q FY 81 1ths 24 months 83 1Q FY 83	2Q FY 82 11 months 1Q FY 83 2Q FY 83 1Q 82 21 months 1Q 84	
PROJECT FINANCIAL PLAN: (Amounts in	in thousands of dollars)	llars)		
	FY 80	FY 81	FY 82 TOTA	TOTAL PROGRAM
	3,700.0	9,467.0	20,755.0 33	33,922.0
	1-147	7 - 1/21/80	•	
CLASSIFICATION	P-1 SHOPP LIST ITEM NO.	PAGE NO.		

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Exhibit P-3a Page 2 of 5

AN/ALQ-156 Missile Detector System 1-80-01-1077(0V-1D) 1-80-01-1177(RV-1D) 1-77-01-0877(CH-47C) 1-77-01-1777(EH-1H/X)

(Amounts in thousands of dollars) BASIS FOR COST ESTIMATE:

	FY 81	FY 82	FY 83	TOTAL	PROGRAM
11 11	QTY COST	QTY COST	QTY COST	QTY	QTY COST
0V-1D					
Non-Recurring		1,167.0			1,167.0
Airframe Mod Kits				91	473.0
AN/ALQ-156 Systems		91 5,080.0		91	5,080.0
Spec Test Equip		769.0			769.0
ERADCOM Eng Spt		331.0			331.0
Installations (OMA)		(30) (78.0)	(61) (168.0)	(91)	(246.0)
TOTAL		7,820.0			7,820.0
PV-10 RT 14					
Non-Recurring		101.0			101.0
Airframe Mod Kits		27 161.0		27	161.0
AN/AI.0-156 Systems		27 1,811.0		27	1,811.0
ERADCOM Eng Spt		37.0		,	37.0
Installations (OMA)		(18) (48.0)	(9) (25.0)	(27)	(73.0)
TOTAL		2,110.0		•	2,110.0

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LQ-156 Missile Detector System	1 80-01-1177(RV-1D)	1-77-01-1777 (EH-1H/X)
AN/ALQ-156 Missil	1-80-01-1077 (OV-1D),	-77-01-0877 (CH-47C), 1

FY 81 BUDGET ESTIMATE Exhibit P-3a Page 3 of 5

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

LPCH-47C		Non-Recurring Airframe Mod Kits AN/ALQ-156 Systems Spec Test Equip ERADCOM Eng Spt Installation (OMA)
	Non-Recurring Airframe Mod Kits AN/ALQ-156 Systems Spec Test Equip ERADCOM Eng Spt Installations (OMA)	ring 4od Kits 5 Systems Equip 1g Spt Ion (OMA)
CTY COST	3,700.0	
QTY COST	658.0 0.0 130 7,769.0 800.0 240.0	0
$\frac{\text{FY } 82}{\text{QTY}} \frac{\text{COST}}{\text{COST}}$	215 2,105.0 87 5,590.0 259.0	151.0 30 159.0 30 1,801.0 163.0 55.0 (30) (67.0)
$\frac{FY - 83}{QTY} = \frac{COST}{COST}$	(215) (451.0)	
$\frac{10TAL}{QTY} = \frac{COST}{COST}$	4,900.0 215 2,105.0 217 13,359.0 800.0 499.0 (215) (451.0)	151.0 30 159.0 30 1,801.0 163.0 55.0 (30) (67.0)

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Exhibit P-3a Page 4 of 5

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

Non-Recurring Airframe Mod Kits AN/ALQ-156 Systems Spec Test Equip ERADCOM Eng Spt Installation (OMA)	FY 80 QTY COST 3,700.0	FY 81 QTY COST 658.0 0.0 130 7,769.0 800.0 240.0	FY 82 QTY COST 2,700.0 360 2,993.0 212 13,763.0 1,040.0 259.0	FY 83 QTY COST (360) (841.0)
Non-Recurring Airframe Mod Kits AN/ALQ-156 Systems Spec Test Equip ERADCOM Eng Spt Installations (OMA)	TOTAL PROGRAM QTY COST 7,058.0 360 2,993.0 342 21,532.0 1.840.0 499.0 (360) (841.0) 33,922.0		·	

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Exhibit P-3a Page 5 of 5

System	
Detector	
Missile	
AN/ALQ-156	•

1-77-01-0877 (CH-47C) 1-77-01-1777 (EH-1H/X) 1-80-01-1077 (0V-1D) 1-80-01-1177 (0V-1D)

TOTAL PROGRAM

4 FY 81 KIT DELIVERY SCHEDULE: EH-1H/X CH-47C 0V-1D RV-1D

4 FY 82

4 FY 83 15 $\frac{14}{80} \frac{27}{190}$ 1|8

215 29 89. 360

90

KIT INSTALLATION SCHEDULE:

EH-1H/X

0V-1D RV-1D

CH-47C

TOTAL PROGRAM 14 15 30 59 30 12 15 30 92 93 $\frac{\text{FY 83}}{2} \frac{2}{30} \frac{3}{92} \frac{4}{93}$ ٦í

215 29 89. 360

METHOD OF IMPLEMENTATION: Airframe mod kits will be applied in the field by contract or depot contact teams. application sites and the application of multiple modifications in the same time frame when practicable. Effort will be expended to identify the most economical method of implementation such as centralized

CLASSIFICATION

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P.1 SHOPP LIST PAGE NO.

2075

DRSAV-C Form 1 May 76

			4								
BUDGET ESTIMATE	DATE 8 Aug 70	Janmer	78(RV-1D)		Continuous Wave					ROGRAM	0.
FY 81 BUI		MODIFICATION TITLE AND NO. AN/ALQ-162(V)2, Continuous Waye Radar Jammer	PIP # 1-80-01-1078(OV-1D), 1-80-01-1178(RV-1D)		The AN/ALQ-162(V)2 Continuous Wave weapons.					TOTAL PROGRAM	9017.0
	AIRCRAFT MODIFICATION	MODIFICATION TITLE AND NO. AN/ALQ-162(V)2, Continuous	PIP # 1-80-01-10		Operational Capability. CW directed air defense	ngineering - 30 81	FY 84	2Q FY 84 12 months 2Q FY 85	llars)	FY 84 COST	3,300.0
	IY	٨		AZ3530) AZ2100)	pe of Improvement - Op protection against CW	Initiate Airframe Integration Engineering ECP Approval - 20 82	FY 82 3Q FY 82 9 months 2Q FY 83	10 FY 82 12 months 20 FY 83	(Amounts in thousands of dollars)	FY 82 COST	5717.0
	REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	APPROPRIATION/BUDGET ACTIVITY APA/2		AIRCRAFT AFFECTED: 0V-1D (SSN AZ3530) RV-1D (SSN AZ2100)	DESCRIPTION/JUSTIFICATION: Type of Improvement - Operational Capability. The AN (CW) Radar Jammer will provide protection against CW directed air defense weapons.	DEVELOPMENT STATUS: Initiate Airfra	MILESTONES: Airframe Mod Kit Contr Award Production Lead Time Airframe Mod Kit Deliveries	AN/ALQ-162(V)2 Sys Contr Awd Production Lead Time AN/ALQ-162(V)2 Sys Deliveries	PROJECT FINANCIAL PLAN: (Amoun		

Exhibit P-3a Page 2 of 3

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

		- 1	FY 83	FY 84	TOTAL	PROGRAM
		OTY COST	QTY	QTY COST	QTY	QTY COST
7	N 0V-1D					
3	Contractual Non-Rec	602.0		424.0		1.026.0
	AN/ALQ-162(V)2 Sys	45 2,288.0		0.878.1 97	ō	7,166.0
	Spec Test Equipment	327.0		0.0001	1	0.001.
	Airframe Mod Kits	91 281.0			5	207.0
	ERADCOM Support	170.0		0 676	16	0.162
	Installations (OMA)		(30) (38.0)	(61) (79.0)	(10)	533.0
	TOTAT		(2.02)	•		(113.0)
	IOIAL	3,668.0		3,300.0		0.896,9
	RV-1D					
Die 1		249.0				0 070
į		27 1,189.0			7.0	1 100 0
	Spec Test Equipment	248.0			3	1,169.0
	Airframe Mod Kits	27 82.0			7.0	0.042
	ERADCOM Support	0.180			17	0.20
	Installations (OMA)	0.102	(0) (0)			281.0
	(WIO) CHOTANTENS	1	(17) (18.0)	(15) (19.0	(27)	(37.0)
	TOTAL	2,049.0				0.690.0

W

AN/ALQ-162(V)2, Continuous Wave Radar Janmer PIP # 1-80-01-1078(OV-1D), 1-80-01-1178(RV-1D)

Exhibit P-3a Page 3 of 3

BASIS FOR COST ESTIMATE: (Amounts in thousands of dollars)

				8.0) (118) (152.0) 0.0 9,017.0
		46 1,87	38	$\begin{array}{ccc} .0) & (76) & (98.0) \\ \hline 3,300.0 & \end{array}$
FY 83	0 ,	0.0	0.0	(42) (54.0)
				5,717.0
(RECAP FOR ALL	Contractual Non-Rec	AN/ALQ-162(V)2 Sys Spec Test Equipment	Airframe Mod Kits ERADCOM Support	Installations (OMA) TOTAL

METHOD OF IMPLEMENTATION: Aircraft modifications will be accomplished by contractor or depot contact teams at user locations. Estimated installation time is 50 man-hours per aircraft.

Car.

MOD KIT DELIVERY SCHEDULE: 0V-1D	$\frac{1}{45} \frac{\frac{2}{46}}{\frac{3}{46}} \frac{3}{4}$	
KV-1D	27	
INSTALLATION SCHEDULE:	$\frac{\text{FY } 83}{2 3} 4$	FY 84
0V-1D RV-1D	= <u>15</u> 15 6 6	1 <u>5</u> 1 <u>5</u> 1 <u>5</u> 1 <u>6</u> 6 9

					FY 81 BI	FY 81 BUDGET ESTIMATE.
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	AIRCR	AIRCRAFT MODIFICATION	TION		DAT	DATE3. Aug 79
APPROPRIATION/BUDGET ACTIVIT APA/2	Å	ANDARICATION ATITLE AND NO.	TITLE AND	NO.		
AIRCRAFT AFFECTED: 0H-6, 0H-58, EH-1X is cov	OH-6, OH-58, RV-1, OV-1, RU-21, U-21, CH-47.* (AH-1 is covered in Cobra Modernization P-3a; EH-1X is covered in Quick Fix P-3a).	CH-47.* (AH-	1 is cover	ed in Cobra	Modern12	ation P-3a;
Description/Justification: Type of spacing for the 225-400MHz band of tfill the UHF-AM radio requirement. with 25KHz spacing is now required. selected to replace the AN/ARC-51BX.	Type of improvement - Operational Capability. Need exists to provide 25KHz channel and of the frequency spectrum. Most Army aircraft use the AN/ARC-51BX radio to fulement. However, the AN/ARC-51BX has 50KHz channel spacing while a securable radio quired. The AN/ARC-164 radio is securable and has 25KHz channel spacing and has been RC-51BX.	onal Capabili n. Most Army ilBX has 50KHz is securable	ty. Need (africaft used channel specificand has 25)	exists to pose the AN/Also children	rovide 25 RC-51BX r e a secur l spacing	KHz channel adio to ful- able radio and has been
Development Status: The RT-1167/AR article testing by the Air Force. with only minor problems detected.	The RT-1167/ARC-164 has been developed by the Air Force and has successfully completed first he Air Force. The Army has completed a three-month service test by TECOM (Apr through Jun 79) lems detected.	ed by the Air a three-mont	Force and h service 1	has succes: test by TEC	sfully co OM (Apr t	mpleted first hrough Jun 79)
The following milestones for procurement of GFE are provided. Ifunds to the Air Force.	ocurement of GFE are provi		tracts for	All contracts for the radio are through MIPR of	are throu	gh MIPR of
GFE Contract Award Initial Contract Leadtime (16 mo)	FY 77 FY 78 & Prior Nov 74	FY 79	FY 80	FY 81	FY 82	FY 83
Production Rate(50 per mo) Follow-on Reprocurement Contracts Deliveries	Feb 78 Apr 76 1Q 80	10 30 80	10 30 88	10 30 82	10 30 82	10 30 83
*PIP NO. 1-78-01-0868 AZ	SSN AZ2900 AA0550 AZ2100 AZ3530 AA0250 AA0300 AA0600	*PIP NO. OH-68 None		SSN AA0350 AA0400	350 400	

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Edition of 1 May 76, may be used. P-1 SHOPP LIST PAGE NO. 2075 DRSTS-C Form 1 Apr 78

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BUDGET ESTIMATE	3 Aug 79		CH-54 2/79 1/81	to accept an AN/ARC-164.	FY 84 TOTAL 0 3.853	FY 82 30 08 { (227) {.734 } 42 } 42 42 { (.049) } 31 direct support leve	EXHIBIT P. 3a
FY 81 BUC	DATE		CH-47 4/78 4/80 1/81 16 mo 6 mo 3/81		FY 83		NOI
		AND NO.	0V-1/RV-1 4/78 1/80 2/80 9 mo 5 mo 3/80	these aircraft aiready have provisions	FY 82 0	65 QTY 65 86 0 (180) 15) 24 4 field uni	CLASSIFICATION
	ICATION	MODIFICATION TITLE A		t already ha	FY 81		1/21/80
	AIRCRAFT MODIFICATION	MODIFICAT	RU-21/JU-21 3/79 4/80 1/81 3 mo 7 mo 4/81 3/83	ese aircrafi	FY 80	7 7 79 AV	1-156 - 1/2
	AIRC		U-21 1/79 2/80 4/80 9 mo 6 mo 2/81	require no kits as th	FY 79 .340	FY 78 13 .030 13 .030 707A (419) * kits will be	P-1 SHOPP LIST 1- ITEM NO.
		IVITY	UH-1 3/78 4/79		FY 78	PY 77 QTY AMT 254 1.13 FY 84 QTY AMT	be used.
	REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	APPROPRIATION/BUDGET ACTIVITY APA/2	AIKFRAME: for ECP Kits Kits y mplete	Note: The OH-58/OH-6 helicopters	ial Plan: FY 77 1.599	Estimates: FY 76 QTY AMT 1.630 QTY AMT (12) {.044 Mentation:	Edition of 1 May 76, may
CLASSIFICATION	ORTS CONTROL SYN DD-COMP (AR) 1092	APPROPRIATION/BUDGET APA/2	MILESTONES FUR AIRFRAM Contract Award for ECP ECP Approval Contract Award Kits Production Rate Kits Leadtime Kits 1st Kit Delivery Installation Complete	The 0H-5	Project Financial Plan: FY 76 FY 77 1.630 1.599	Basis for Cost Non-Recur Kits GFE Install (OMA) Non-Recur Kits GFE Install (OMA) TOTALS Mon-Recur Mon-Recur Mon-Recur Mon-Recur Mits GFE Method of Imple	r 2075
CITY	REP	APPI	Contra Contra Contra Produc Leadti 1st Ki	Note:	Projec FY /6 1.630	Basis for Non-Recur Kits GFE Non-Recur TOTALS GFE Install (Non-Recur Kits GFE Install (Non-Recur Wethod of	DRSTS-C Form 1 Apr 78

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					-								FY 81 BUDGET		ESTIMATE
	REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	ONTROL	SYMBOL 1092				AIRCI	AIRCRAFT MODIFICATION	DIFIC	ATION			DATE 3	Aug 79	6
يد	APPROPRIAT APA/2	TION/BI	APPROPRIATION/BUDGET ACTIVITY APA/2	ITY				MODIF AN/ARC	164	MODIFICATION TITLE AN/ARC-164	E AND NO.	·			
erich.	Basis for C	for Cost Estimate FY 76 FY OTY AMT OTY	imate FY 77 QTY AMI	FY 78 QTY AMT	AT OTY	Y 79 Y AMT	FY	80 AMT	77	81 AMT	FY 82 QTY AMT	FY 83 QTY -AMT	FY 84 QTY AMT	TOTAL	AMT
	Non-Recur CH-47 SUBTOTAL		.463					.065							.528
		5 4			_	18 .020	•	13, .046 0 0 9 .013	. .	.130				13 86	.046 .130
	0H-58 0H-6 CH-54 CH-47 SUBTOTAL				210 228	0 .294 8 .314	4 105	071.	86	.130				210 419	.294
	GFE U-21 RU-21 0V-1 RV-1			w 4 rv →	2000 248 €	2 4 6 9 2 6 6 6 6 9	000	⊖∘⊝						95 95 33	<u></u> %0°°
	0H-58 227 0H-6 191	7 .920 1 .710												227 191	.920
	CH-47 SUBTOTAL 418 1.630	8 1.630	254 1.136 254 1.136	13 .030	30 116	970. 9		125 1.056						254 926	1.136 3.878
	GRAND TOTALS 1.630	1.630	1.599	.030	00	.340	6	.124		.130					3,853
1	① Units provided at no cost to	rovided	at no cost		PIP b	this PIP by DRCPM-AE	4-AE	1-157	1	1/21/80					

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										۵	≅	BUDGET ESTIMATE	<u>ب</u> .1
REPORTS CONTROL SYMBOL DD-COMP (AR) 1092	BOL			AIRC	RAFT !	AIRCRAFT MODIFICATION	ATION	•	•		DATE	3 Aug 79	
ROPRIATIO APA/2	T ACTIVI	LΛ			MOD1	MODIFICATION AN/ARC-164	N TITLE	AND	NO.			·	5 4.50
FOR COST ESTIMATE FY 7 FY 78 FY 7 FY 7	⊫ı	FY 80 QTY AMT	FY	81 AMT	FY E	82 AMT	FY 8 QTY	33 AMT	FY 84 QTY A	AMT	TOTAL QTY AN	AMT	ો
INSTALLATION (OPA) U-21 RU-21 OV-1 RV-1 UH-1 OH-58		:	(112)	(860.)	(1) (57) (9)	(.004) (.322) (.052)	(12)	(.044)		C	(13) (169) (27)	.048) .930) .150)	
OH-6 CH-54 CH-47 SUBTOTAL			(50) (180)	(.102)(160) (.808)(227)	160) 227)	(.356)	(12)	(.044)			(210) (419)	(.458) (1.586)	
RECUR (OMA) (.350) (.167)	(.224) (.114) (.089) (.140)	(.053) (.397) (.295) (.010)	0 0 0 0 0	(.015) (.070) (.010)		(.007) (.007) (.025) (.010)		(.007)				.306) .532) .829) .030)	Sind .
OH-6 CH-54 CH-47 SUBTOTAL (.517)	(.295) (.050) (.912)	(.060)	(o) 5)	(.040) (.142)		(.049)		(.014)			2.5	(.395) (.050) (2.449)	
Kit Delivery Schedule Kit Install Schedule	~ I	FY 80	33 33 33 33	FY 81 2 3 31 43 33 33	833	1 2 58 52 58 58	82 3 4 41 3 58 53	4 E E	FY 83 2 3 3 3	4 6 [FY 84	TOTALS 419	
	•			1-158	,	1/21/80						ì	en d

DRSTS-C Form 2075

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AIRCRAFT PROCUREMENT, ARMY

Section 9

Flight Simulator Procurement Summary

1-159 - 1/21/80

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-				FY 81 BUDGET ESTIMATE	T ESTIMATE				
			FLIGHT	PLIGHT SIMULATORS PROCUREMENT PROGRAM	ROCUREMENT P	ROGRAM			
APPROPRIATION: Aircraft Procurement, Army	rcraft	Procurement, A	rmy						
System	Type	FY 80 & Prior Qty/Amount	FY 81 Qty/Amount	FY 82 Qty/Amount	FY 83 Qty/Amount	FY 84 Qty/Amount	FY 85 Qty/Amount	Cost to Complete Qty/Amount	Total Cost Qty/Amount
UH-1 (2B24) (SSNA09500)	S	21/56.1	1	ı	1	i i	1	t t	21/56.1
CH-47 (2B31)(SSNA09100)	FS	3/24.8	ı	í	1	1	1	2/22.8	5/47.6
AH-1 (2B33) (SSNA09300)	FWS	1/21.8	1	1/12.6	1/17.6	ı	1	2/39.6	5/91.6
UN-60 (2B38)(SSNA09400)	FS	1	1	1/17.2	1/20.0	2/36.3	2/36.6	4/84.3	10/194.4
AH-64 (2B40) (SSNAD9000)	FWS	1	l l	f 1	i	l í	1	4/117.2	4/117.2
GRAND TOTAL		102.7	i i	29.8	37.6	36.3	36.6	263.9	506.9
-									

1-160 - 1/21/80

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HAC SAC HASC SASC HBC SBC CBO	ASD (DFOISR) ASA (ILGFM) ASA (RDA) ASA (RDA) ASA (RCA) DACS-DC DACS-BRZ-A DACS-DP	DACA-BUB DACA-BUS DACA-BUR DACA-BU DAAG-OPZ-D DAAC-RM-BB

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 2. GOVT ACCESSION	N NO. 3. RECIPIENT'S CATALOG NUMBER
	1
4. TITLE (and Subitio) (in 5 parts)	5. TYPE OF REPORT & PERIOD COVERED
Department of the Army Justification of Estimate	Army Procurement Budget
for Fiscal Year 1981, Submitted to Congress Jan-	Justification, FI 1981
uary 1980, Procurement Programs, Aircraft, Missi	
Wnns & Tracked Cht Veh, Ammunition and Other Pro	
	S. CONTRACT OR GRANT RUMBERTS
Department of the Army	Ī
•	
9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
HQDA, Office of the Deputy Chief of Staff for	
Research, Development, and Acquisition (DAMA-PPE	'-B)
Washington, D.C. 20310	12 25227 2175
11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE
HQDA, Office of the Deputy Chief of Staff for Research, Development, and Acquisition (DAMA-AOA	January 1980
Washington, D.C. 20310	421 (includes all 5 parts)
14. MONITORING AGENCY NAME & ADDRESS(II different from Controlling Off	
	UNCLASSIFIED
1	15a. DECLASSIFICATION/DOWNGRADING
	SCHEOULE
16. DISTRIBUTION STATEMENT (of this Report)	
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17. DISTRIBUTION STATEMENT (of the abetract entered in Block 20, If different	int from Report)
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18. SUPPLEMENTARY NOTES	
The source of th	
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19. KEY WORDS (Continue on reverse side if necessary and identify by block no	
Army Procurement Programs Budget Justification B	
Missiles, Weapons and Tracked Combat Vehicles, A Army Appropriations programs submitted by the Ar	
Fiscal Year 1981.	my to congress sandary 1900 for
20. ABSTRACT (Courlinus on reverse side if necessary and identity by block nur	ı
In justification of programs requested, this doc	ument, in separate volume for
each of the five Procurement Appropriations, pro	vides backup data for the Army
Budget submission for FY 1981. Included are Sum	maries of Requirements, Program
and Financing Statements and Selected Data Sheet declassified for NTIS distribution).	s. (This document has been
declassified for with distribution,	
* aircraft	
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